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Web & Internet News

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MANOA INNOVATION CENTER

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FREE

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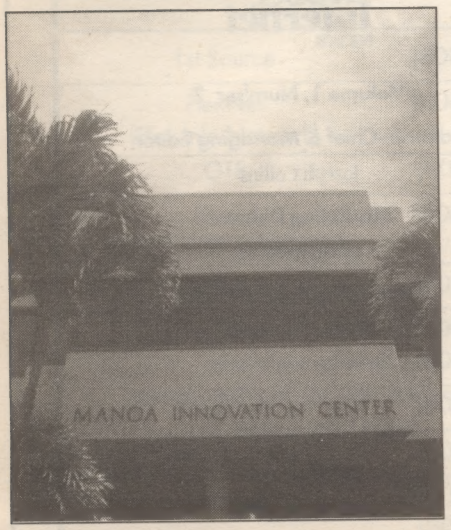

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On the cover (Manoa Innovation Center):

Left to right
Back row: Mitch Varney (MIC Manger), W. Dorsey Stewart (Neugenesis), Seth Ashby (Digital Hawaii), Will Hartzell (Grand Solar) One row down from back row: Meredith Lee (TerraSystems), Bruce Campbell (Rising Wave), Peter Kay (CyberCom), Jonathan Gradie (Terra Systems) Next row down: Gary Ideda (Ergo Linguistic Technologies), Fred Li (Computer Visualizations), Brian Ho (Logical System Services), Steven Chiang (Logical System Services) Front Row: Hatsumi Choi (Rising Wave), Tom Yokoyama (Laser Barcode Solutions)

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Your guide to local ISPs

COMPANY NAME	PHONE NUMBER	FAX NUMBER	EMAIL ADDRESS	SET-UP FEE	MONTHLY FEE	WWW ADDRESS (URL) http://www.
			OAHU			
1st Source	(808) 293-0733	(808) 293-0733	info@1sc.com	$25.00	$25.00	1source.com
FlexNet (Flex Info Network)	(808) 539-3790	(808) 539-3793	info@aloha.com	$25.00	$25.00	aloha.com
GTE	(808)643-3456		webmaster@gte.com	$20.00	$19.95	gte.net
HI Net (Hawaii Internet System)	(808) 235-1513	(808) 236-3134	info@hi.net	$20.00	$25.00	hi.net
HITS	(808) 592-8200	(808) 592-8200	info@hits.net	$30.00	$25.00	hits.net
Hawaii Online	(808) 533-6981 (808) 207-1880	(808) 246-4734	info@aloha.net	$30.00	$19.95	aloha.net
Hula Net	(808) 524-7717	(808) 524-7732	hulagirl@hula.net	$25.00	$25.00	hula.net
Honolulu.NET	(808) 536-0900	(808)536-5597	info@honolulu.net	$25.00	$19.95	honolulu.net
Interact!	(808) 533-0447 (800) 906-4794	(808) 533-0447	sysop@bbs.ohana.com	none	$30.00	ohana.com
I-One	(808) 623-7446	(808) 625-1710	info@i-one.com	$30.00	$21.95	i-one.com
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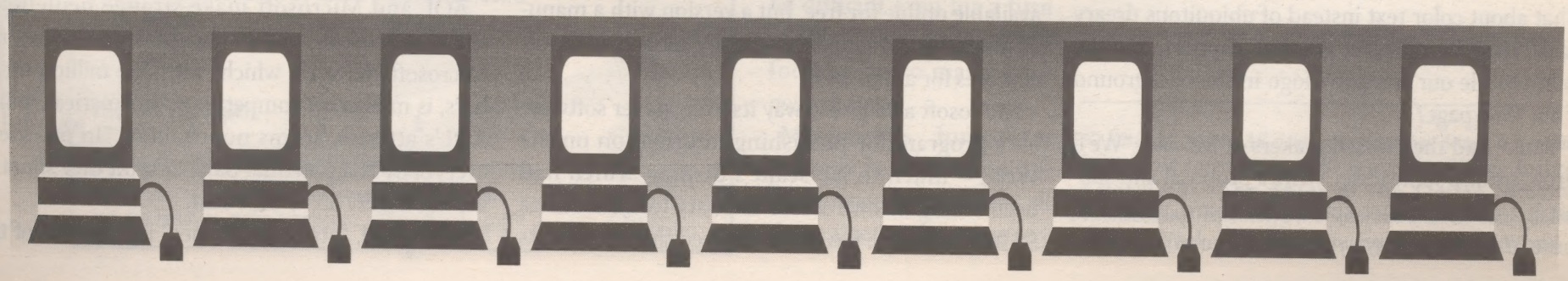
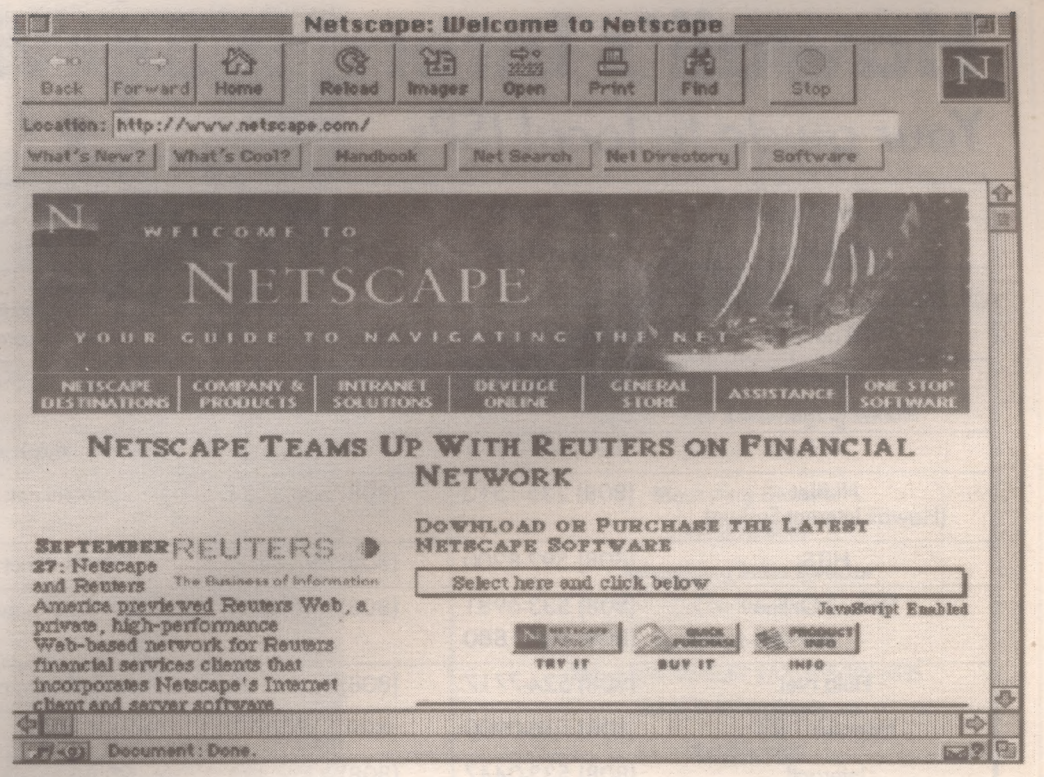


The Browser Wars

Strategies of Microsoft vs. Netscape

by Kevin M. Savetz



Netscape Navigator is currently the most popular browser to date, with Internet Explorer not far behind.

If you are one of the millions of people surfing the Internet, chances are good that the program you're using to do it is Netscape Navigator. If it is, you are in good company: an estimated 81 percent of users on the World Wide Web, the graphical portion of the Internet, use Navigator. And it's no wonder, Netscape Navigator does for the Web what peanut butter does for celery: takes something that's good on its own, and adds a new level of excitement and purpose.

Until recently, there were no other browsers to speak of. Sure, others existed, but thanks to clever programmers and an aggressive marketing strategy, no other browser came close to the features available with Netscape.

The program that started the Web phenomenon is called NCSA Mosaic. Mosaic was the first Web browser available to Internet users. Using it, they could for the first time, access the Internet with a sleek, graphics-laden, point-and-click interface. Mosaic was an incredible improvement over the Internet's then-standard, text-only interface. Created at the National Center for Supercomputing Applications (NCSA), located at the University of Illinois at Urbana-Champaign, Mosaic single-handedly changed the face of the Internet. For many months, it reigned supreme.

Bill Gates has deemed the Internet a central component of Microsoft's strategy, and has taken it upon himself to take the wind out of Netscape's sails.

Internet users loved Mosaic for its unprecedented ease-of-use. Individuals and organizations that wanted to publish information online loved the power of the Web. But after the initial shock and wonder wore off, everyone wanted more features. What about color text instead of ubiquitous dreary black? How about better graphics support, and the ability to tile our company logo in the background of our Web page?

"Fine," said the pleased makers of Mosaic, "We'll throw around some ideas, write a proposal and submit it to the Internet standards board. After all, there are certain ways you should go about these things. Changes must be considered carefully."

"But we want it now!" cried the ever-growing Web-using community.

Enter Netscape Communications, a start up company based in Mountain View, California. The folks at Netscape also saw the power of the Web, and they knew they could build a better browser. They created Netscape Navigator and gave users the added tools that they wanted. Without consulting anyone else, they added features to the Web, including many of the goodies requested by users. Navigator was an instant hit. Users immediately began using the features unique to Navigator. Mosaic would be left in the dust by Netscape's unprecedented use of unofficial additions to the language of the Web.

It may have been easy to trounce on the work of a bunch of graduate students at NCSA, but today Netscape has bigger problems. The company is now locked in a battle with software behemoth Microsoft. Bill Gates has deemed the Internet a central component of Microsoft's strategy, and has taken it upon himself to take the wind out of Netscape's sails. Now Netscape is fighting the fight of its short life. The stake is the lead position in a market that may be the key to a new generation of communications technology.

Microsoft's browser, Internet Explorer, is, like Navigator, an impressive piece of software. It builds on the features of Mosaic and Navigator and offers its own features unavailable elsewhere. Microsoft gives its browser away for free; Navigator is also available online for free, but a version with a manual and technical support is also available in computer stores for about $50.

Microsoft also gives away its Web server software — a program for publishing information on the Web — much to Netscape's dismay, which had been selling its own server software for as much as $5,000. Netscape has since dropped the prices of its servers (the low-end version was reduced from $1,295 to $295; the high-end version was slashed from $4,995 to $990); although, it has not resolved to give its product away, too. Netscape knows it can't beat Bill Gates at his own game, so it intends to fight back by providing what it believes are better products, ones that are worth actually paying for.

In the last quarter of 1995, about 50 percent of Netscape's revenue came from server software, 30 percent came from browsers and 20 percent from services. In other words, Microsoft directly threatened 80 percent of Netscape's income. In 1995, Netscape turned its first quarterly profit in July-September, earning $1.4 million, increasing that to $2.4 million from October-December.

Adding to Netscape's injury, Microsoft began making deals with commercial online services (through which most Internet users get their access) to supply Explorer to their users, undercutting Netscape's efforts to do the same. Just one day after Netscape announced an agreement to provide its software to America Online, the country's largest online service, Microsoft announced a coup in an even better deal with AOL. Microsoft's browser would become the default for AOL users. Netscape's would be an option for users who ask for it. As payment, Microsoft will give AOL built-in access from the Window's 95 operating system, a potential audience of 20 million people.

AOL and Microsoft make strange bedfellows, since Microsoft runs its own online service, the Microsoft Network, which, with one million members, is malignant competition for America Online. AOL's attitude seems nonchalant: "In our view, everybody is a potential partner-until they shoot at us," AOL CEO Steve Case said.

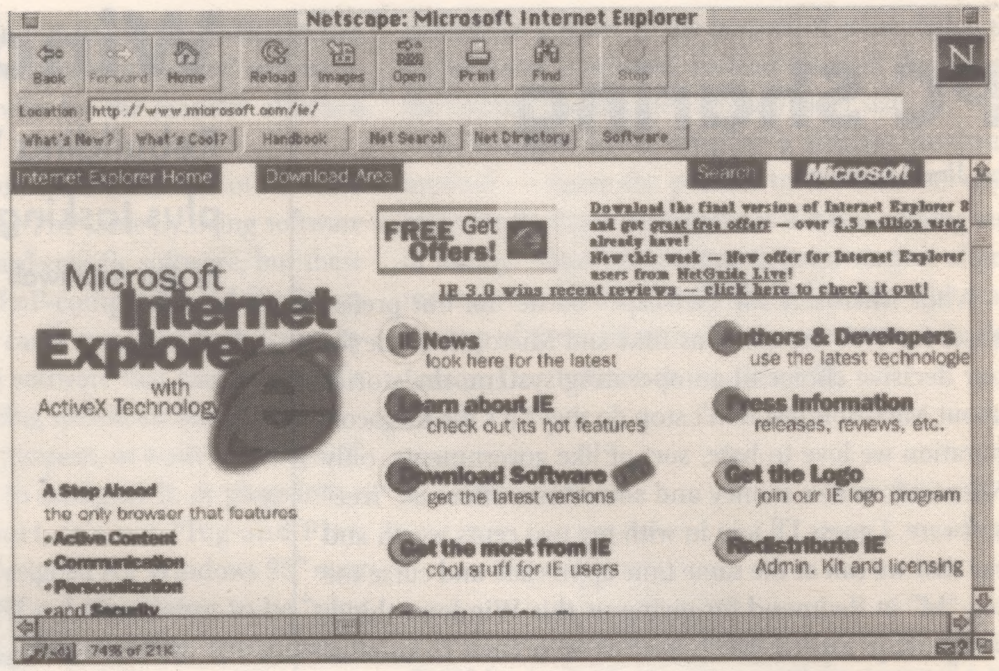
In the end, "strategic alliance" is the name of the

game. It doesn't necessarily matter which browser is better. Most Internet users will use the browser that is handed to them. Netscape has forged alliances with Internet providers PSI, AT&T and Netcom, which should increase Navigator's user base by 10 million to 20 million people. Despite Microsoft's advances, Netscape still holds a firm lead in the browser market. About 15 million people use Navigator, opposed to an estimated 1.3 million who use Explorer.

Microsoft denies it is trying to oust Netscape from the browser market, but the company has made it clear that it doesn't like to play second fiddle, either. As Bill Gates said, "Majority browser share is certainly our goal."

When it suits the company, Microsoft even works in reluctant cooperation with Netscape. Netscape has been working for many months with Sun Microsystems to develop Java, a programming language that is bringing more interactivity to Web pages. Microsoft considered creating its own Web language as competition for Java, but apparently decided it wasn't worth the trouble. So Microsoft bought a license to utilize Java in Explorer.

End users both win and lose due to the browser wars. Internet users can choose between two excellent browsers and Net publishers have more options for inexpensive Web servers. Web pages look more interesting and dramatic than ever before, replete with tables of data, on-screen "frames" for organizing information and other multimedia delights. The Web has never been so interesting to use, nor has it ever been so difficult to create Web pages. As both companies add features, the programing language of the Web, once simple and straightforward, is becoming increasingly ungainly and awkward. Without centralized agreement about how the Web should work (the sort of careful strategy that NCSA tried to provide), it is becoming more difficult to use the Web. The same strategy that Netscape used to trounce Mosaic, Microsoft is using against Netscape.



Microsoft's Internet Explorer closes in on Netscape Navigator with the release of IE 3.0.

The online industry is comprised of three facets: content, software and Internet access. Netscape, Microsoft, America Online, CompuServe and every other company in the field must focus on the areas they know best. Netscape has clearly sided itself in the software category, virtually ignoring the other two areas. This single-mindedness could make the company stronger. On the other hand, Microsoft is working in all three areas. They provide Internet access and content through the Microsoft Network, as well as Web browser and server software. Microsoft's sheer size may give it the ability to work in those three areas simultaneously, but it can be difficult even for a firm of Microsoft's size to remain focused on so many lofty goals at once.

Microsoft's long-term strategy is to incorporate the Internet into almost all the software the company releases. It wants information to flow seamlessly between its products and the Internet. Already, the company is planning to sell a $50 add-on package for Windows 95 that will extend its Internet capabilities and add new multimedia tools. Microsoft has demonstrated the next version of its Explorer browser which it says will seamlessly combine its Windows 95 operating system with the Web. Its Word and Excel software will include features to allow users to collaborate and share information over the network.

Whether their plan will work remains to be seen. It depends heavily on the validity of its hypothesis, its leap of faith, that users want to see a mergence of the best features of the Internet and of the offline world, rather than the current system, which clearly defines the purpose of the offline and online realms. These features could make it easier to work with our computers, or they may just end up as annoying gimmicks. This time, the Internet community doesn't seem to be crying "We want it now!" but Microsoft has been known to give people what they want *before* they knew they wanted it.

Keeping with its penchant for steadfast single-mindedness, Netscape is plugging along in its software realm. In the end, it's anyone's game. Microsoft may take the Internet by storm from all sides or Netscape's freight train approach could ultimately roll over Microsoft's relatively unfocused Internet strategy.

One thing is certain: the Web will never be the same.

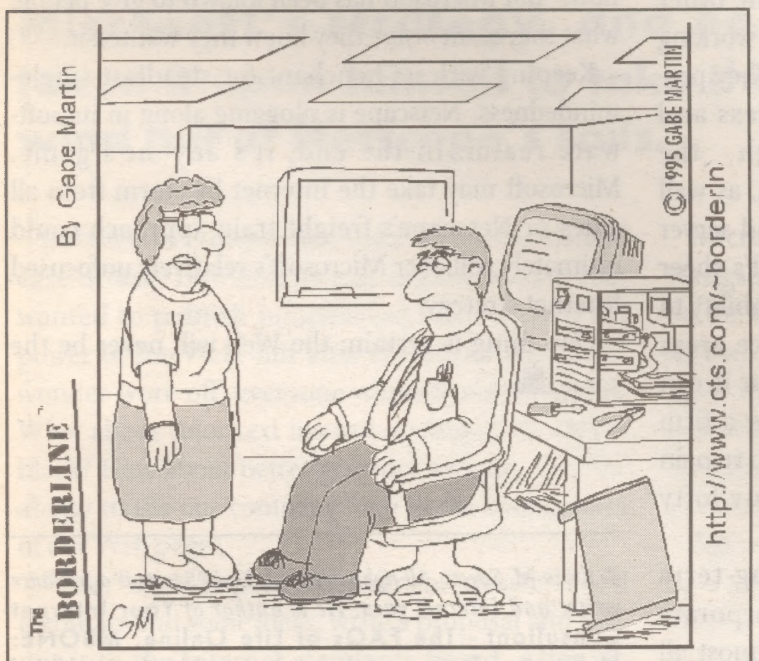
PC Sharing

by Jim Aspinwall

While Microsoft and Netscape "battle" for our preferences for Web browsers, as IBM and Microsoft battle for our decisive choice of an operating system, the stories about Microsoft just don't stop do they? It's the megacorporation we love to hate, sort of like governments, only Microsoft makes money and sometimes offers us "free" software. I guess I'll join in with my two cents worth and say that we can at the same time appreciate and curse the big "M" in Redmond for giving us this Windows thing, and perhaps indeed the PC itself as we've come to know it. If things were different we could blame some almost forgotten folks in Santa Cruz, California, for the operating system that IBM could have chosen back in the early 80's. For our part, we can share what we know and what we want to know (which no doubt Microsoft depends on too) to get us through it all. It's always encouraging for me, as with any writer I suspect, to see the words we've written appear in new typeface in a new publication, knowing hopefully, that we've shared a little more information with a great audience who can make use of what we have to offer. Indeed, sharing what we all know or want to know about PCs is the best asset we have for staying informed.

The online world, and of course the Internet, brings us all as close to each other as our keyboards and screens are at our homes or offices. This column and the others like it are for all of us, readers, writers and all the folks in between and around us. We'll all make Microsoft look good yet! Meanwhile, I'll keep on harping about sharing information and I hope to hear from you soon!

Mahalo!

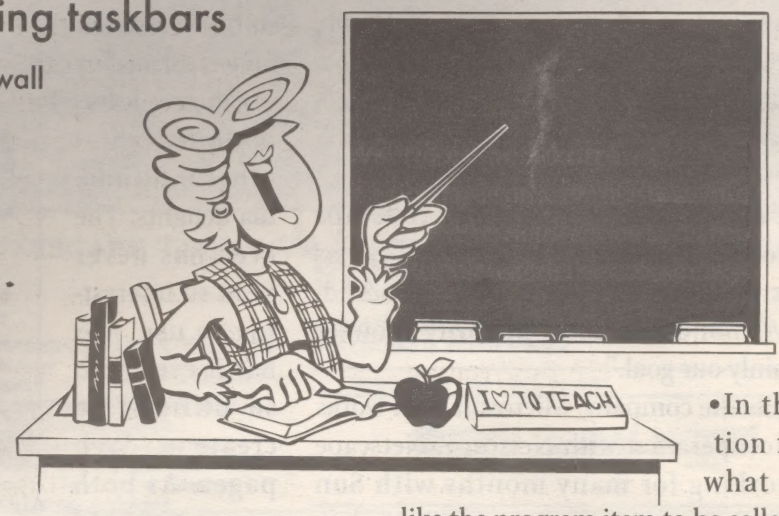


"I've found the problem, Ma'am, and you were right: it just doesn't like you."

Windows Q & A

Rebuilding Windows, the ins and outs of Plug-and-Play plus tasking taskbars

by Jim Aspinwall



The case of the missing group

QUESTION: *I accidentally deleted my Main program group icon from my Windows 3.1 desktop. My family is furious and about to delete me. How do I get it back?*

ANSWER: Fear not, you won't be disowned, you just have a little work ahead of you. When you delete a program group's icon you also delete the group's file from the Windows subdirectory, and its reference from the PROGMAN.INI file. You can rebuild the default or native Windows program groups by running SETUP with a /P command line option. In Program Manager, go to File, then select Run, and key in SETUP /P, then press <Enter>. This rebuilds the default Windows groups. It does not consider any other programs you have added to the Main or other groups. For these you may have to manually add them, as indicated below, or browse for them.

You can add to or recreate groups by the following standard procedure:

- Left-click on File in the Program Manager menu bar
- Left-click on New
- Left-click on Program Group, then OK
- Key-in the Description for the group to be rebuilt
- Left-click on OK

Then, begin filling the group with each normal program item Windows puts there:

- Left-click on File in the Program Manager menu bar
- Left-click on New
- Left-click on Program Item, then on OK
- In the Description field key in what you would like the program item to be called
- In the Command Line field key in the name of the program you want activated by the icon
- Left-click on OK

Repeat this procedure as needed.

Can I Really Plug-and-Play?

Q: *What the heck is "plug-and-play" and what isn't? I'd like to know where the real "PnP" implementations lie, in general, and where they don't.*

A: Plug-and-Play is one of the newer PC industry standards that is supposed to allow us mere mortals the ability to add and remove various I/O devices like modems, serial ports, network cards, video and disk adapters, without having to bother with figuring out which IRQ, DMA or address to set all those troublesome switches and jumpers. The technical details and the dilemma of so many misconfigured PCs is supposed to disappear right before our very eyes.

In theory, and in limited and increasing practice, as new PCs and devices come along, Plug-and-Play or PnP for short, does work with the right type of devices. By the right types, I/O devices, the PC system BIOS and the operating system (like Windows 95) must be designed for Plug-and -Play.

Active or intelligent I/O devices (or those that plug into the PCs I/O bus system, whether it's 8 or 16 bit ISA, local bus or PCI) such as new disk adapters, internal modems, mice, video adapters and network cards can be easily designed and implemented for PnP.

PCMCIA or PC Card devices set some of the first working examples of PnP that have

carried over to current systems. Because of costs, and the fact that many common I/O ports are built into system boards nowadays, you may not find too many parallel (printer/LPT) or serial (COM) port cards, even though they plug into the PC bus, available with Plug-and-Play. These and older non-PnP devices are called legacy devices. They are generally "passive" or without the smarts to be able to be electronically reconfigured by PnP BIOS or operating systems.

To maintain compatibility, a PnP BIOS and operating system must first detect the older devices, and then works around these preset configurations, making automatic configuration adjustments to the PnP devices as needed. You'll find that external modems, many printers and video monitors are not Plug-and-Play devices, even though the operating system might detect that they are present and be able to learn some features about them in order to work correctly.

External modems depend on the COM port they are attached to for PC connectivity, but can be identified through the COM port by sending a command to the modem and reading make and model information back. Printers are typically output-only devices that do not talk back to the PC, but some can, if you have a bidirectional or ECP LPT port. There is little or nothing to configure for a monitor attached to a video adapter and there is no data path out of a monitor, but some video adapters can test themselves to determine horizontal and vertical scanning frequencies for the monitor attached to them.

There have been some networks and other cards that have confused the PnP issue by being software configurable using card-specific software, but these are not necessarily PnP-compatible. Many 3Com and similar network cards crossover both issues by having configuration software that can be used if a PnP BIOS and operating system are not in use.

Generally, if it has jumpers, or *needs* a card-specific software program to configure it, or plugs into a non-data bus or port, it's not Plug-and-Play. Hardware labeled "Designed For Windows 95" *must* be PnP compatible. If a device claims to be "plug and play" rather than "Plug-and-Play" specifically, it may be suspect as not being PnP compatible.

Taskbar Hide 'n Seek

Q: HELP!! I set my Taskbar to Auto Hide and suddenly it disappeared. How do I get it back?

A: Between the auto-hide feature and those nasty Windows 95 dialogs that insist on planting themselves at the bottom of the screen behind the taskbar, this one stumped me too. To make the taskbar mysteriously disappear, chances are you moved the pointer to the bottom of some dialog to try to resize it upward, instead snagged the top of the taskbar and dragged it to a smaller size.

To bring it back, employ a similar devious method — move the pointer to the task bar area and note its slight movement as if it was coming out of hiding. Align the pointer to get a vertical alignment arrow, click and hold the left button and drag the top of the taskbar back into existence — ta da! Lesson: Don't shrink that taskbar!

 Jim Aspinwall is the author of the best-selling book, IRQ, DMA, & I/O *covering PC configuration guidelines; and a co-author of two PC how-to books,* The PC User's Survival Guide *and* Troubleshooting Your PC *(with Rory Burke and Mike Todd.)*

Hawaii's Web & Internet News *readers are encouraged to submit PC, DOS, Windows 3.x or Windows 95 questions via the Internet to:* wb9gvf@netcom.com, *or the Web:* http:// www.raisin.com.

Nurturing High-Tech Business in Hawaii

Manoa Innovation Center

by Kristine Bucar

Manoa Innovation Center High-Tech Companies

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Amagata U.S.A., Inc.
Atlantis Cyberspace
Blue Planet Software
CNJ, Inc.
Computer Visualizations, Inc.
CyberCom
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Digital Island
EnviroMediaTM Inc.
Ergo Linguistic Technologies
Fleet Street Graphics
FlexNet Inc.
GCI
Geographical Decision Systems International
Geo InSight International, Inc.
Grand Solar
International InfoTrade, Inc.
Laser Barcode Solutions, Inc.
Logical System Services, Inc.
Manoa Interactive Productions, Inc.
Martin Information Systems, Ltd.
MedMedia, Inc.
MonteSol
Neugenesis Corp.
Oceanic Imaging Consultants, Inc.
Office of Technology Transfer and Economic Development of the U.H. (OTTED)
Pacific Area Networks, Inc.
Pacific International Center for High Technology Research (PCICHTR)
Research Corporation of the University of Hawaii (RCUH)
Rising Wave, Inc.
SoapBox Software, Inc.
Summit Communications, Inc.
TerraSystems, Inc.
Universal Resource Locator, Inc.
Visitor Communications Technologies

The story of the Manoa Innovation Center (MIC) is really two stories. The first is the support provided by state organizations. The second is the courage of each entrepreneur's own convictions in the fast-moving, constantly changing, high-tech industry.

The Manoa Innovation Center is one of many projects of the High Technology Development Center (HTDC). The Manoa Innovation Center, like the Maui Research Technology Center located in the Maui High Technology Park in Kihei, specifically focuses on incubating start up, high-tech companies.

The 46,000 square-foot facility opened for business on April 1993 amidst the lush landscape of the Manoa valley. Currently 35 companies reside at MIC. In the three years since opening, MIC has had 40 business starts and seven failures. That translates into an 82.5 percent *success* ratio.

According to the HTDC Strategic Plan 1995 - 2000, the high-tech industry gross state product increased by 120% from 1990 to 1993. Statewide the GSP rose by 15%. In 1993, the high-tech industry's contribution to the GSP was 4.4%. The HTDC arrived at the figure from a survey taken of 246 companies with sales of $958 and employing 7,125. The combined sales revenues of MIC companies increased from $1.6 million in 1993 to $2.7 million in 1994.

In 1995, MIC businesses produced revenues of more than $4.2 million, which was a 47% increase from 1994, as well as employed 146 full and part-time workers. The gross sales for 1996, based on the first six months, of the year are projected to be greater than $7.5 million. Likewise, these companies also spend. The estimated expenditures for payrolls and purchases within the state top $5 million.

Manoa Innovation Center businesses produced revenues of more than $4.2 million and maintain an 82.5 percent success ratio.

As a technology center and business incubator, MIC provides support services to its charges. MIC provides management, business and financial consulting and marketing, as well as sales and business plan assistance. MIC maintains a full-time administrative staff, receptionist, mail handling system, and fax and photocopying center. Offices at the facility range from 250 to 1000 square feet and include PBX and cabling. Generally, occupants may stay three to four years, but they're not automatically kicked-out at the end of a certain time period. That would defeat goals of the center: to support the fledgling businesses.

The facility is at near capacity and they're currently expanding to create more office space. Tenants are put on a month-to-month lease. Office space runs $1.85 per square foot. That was below market rate when it was set, but now with a soft economy, is competitive. Mitch Varney, MIC manager, explained that a few companies have been so successful, such as CyberCom, a provider of Internet business solutions, and Neugenesis, a biotechnology company, that they're on the verge of breaking away and graduating from the incubation phase.

Computer Visualizations, Inc. (CVI) a producer of educational and training CD-ROMs, is going to become an "anchor tenant," which is considered a graduate. CVI employs about 30 people, but Varney said the average company size is two to three people.

CyberCom, a provider of Internet business solutions. Left to right—Back row: Ernest Lee, Tom Billings, Peter Kay (aka Jean Luc Picard), Tad Fujinaka, Kai Holland. Front Row: Danny Espinosa, Les Kiyuna, Glen Nakamura, Alvin Wong.

Rising Wave, a multimedia publisher specializing in interactive educational programs, has been an occupant at MIC a little longer than one year. Bruce Campbell, president, said that the main advantage is having all the other companies nearby who are doing the same thing. He's developed close working relationships with them and has been able to trade ideas and equipment.

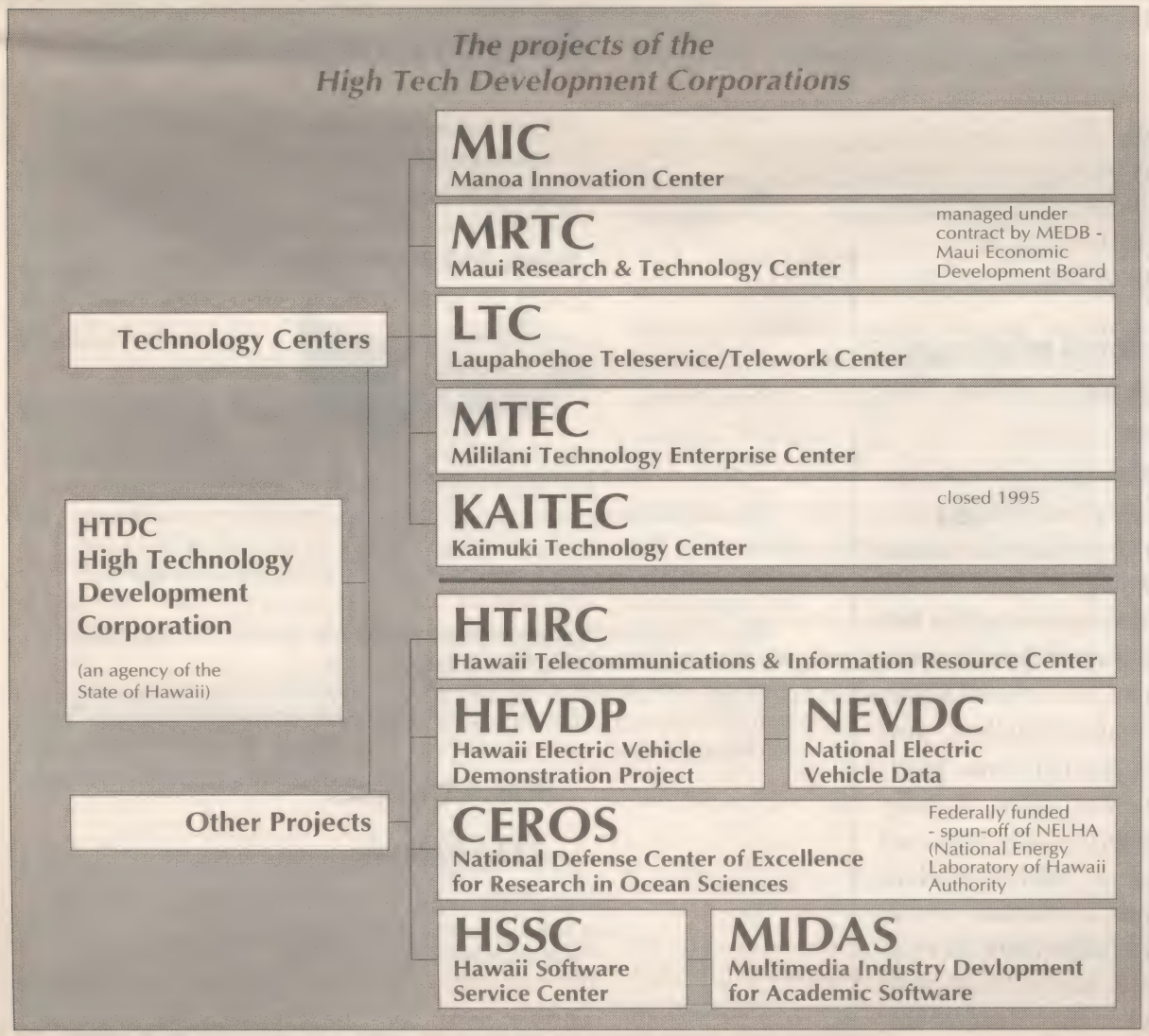
Rising Wave produced Black Belt, a multimedia program for learning Japanese. They're currently developing Our Story, educational software for the DOE. Campbell said that Our Story "empowers kids to be authors of multimedia."

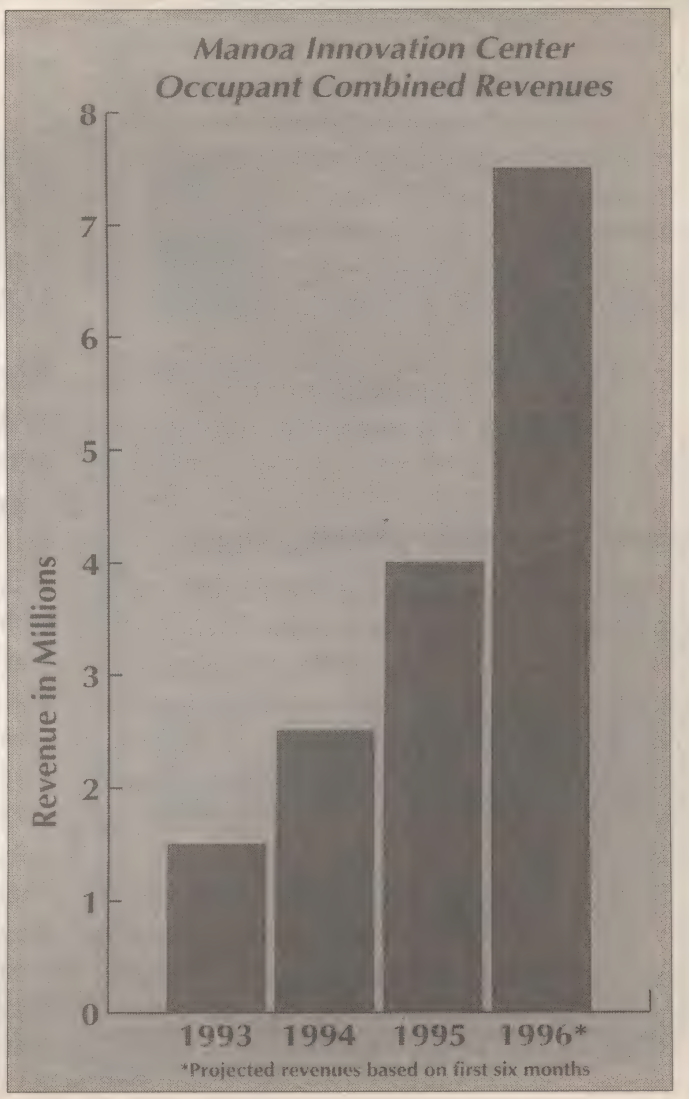
Common areas at MIC are available for training and meetings such as the monthly Electronic and Cyberpizzas, the MIC Brown Bag educational series and the Association of Interactive Multimedia Developers of Hawaii. The Digital Media Lab, a joint project of the UH and MIC had resided at MIC, but was recently moved to the UH. Videoconferencing and the Training Room are available to MIC occupants and the general public for a fee.

MIC is under the direction of the High Technology Development Center (HTDC), a state agency, which is administratively attached to the State of Hawaii Department of Business, Economic Development and Tourism. The state legislature created the HTDC in 1983 to facilitate the development of the high-tech industry and to encourage economic diversification.

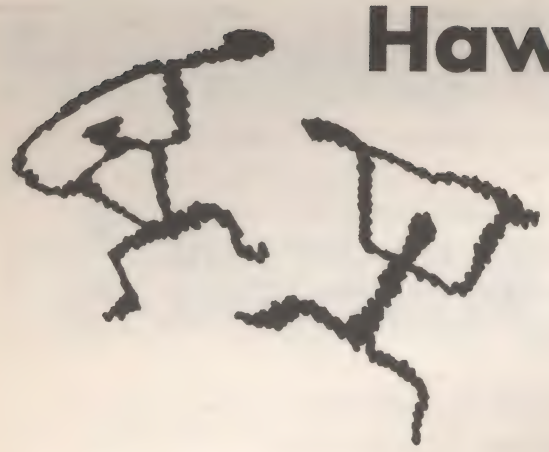
The HTDC has launched a number of projects to help facilitate the growth of the high-tech industry. Those include the Kaimuki Technology Enterprise Center (KAITEC) a successful incubation facility which opened in 1988 and shut down in 1995. Other projects of the HTDC include the Hawaii Software Service Center (HSSC), the Hawaii Electric Vehicle Demonstration Project (HEVDP), Mililani Technology Enterprise Center (MTEC) and the National Defense Center of Excellence for Research in Ocean Sciences (CEROS).

Kristine Bucar is a Hawaii-based freelance writer. Send her email at kbucar@lava.net.





Hawaii NewsBytes



GTE offers Internet access

GTE Internet Solutions began providing Internet connectivity to businesses and individuals. The dial-up service is $19.95 a month for unlimited access. The start up package includes a copy of Netscape's popular Web browser, Navigator 2.01. One megabyte of virtual real estate is available for Web pages.

GTE is also offering a less expensive option: $8.95 for five hours per month and $1.95 for each additional hour. Both options can be billed on a GTE customer's telephone statement.

There's an 800 number that can be used when customers are outside the normal dialing area, but there's a $4.50 charge for using it.

GTE will be setting up "cyberbooths" in areas with plenty of foot traffic such as key shopping area, airports, convention centers and hotels.

The four-sided kiosks include two terminals for Internet access, a "Millennium" phone and a laptop docking station. Initially, the Internet access will be free; eventually, the charge will be $5 for 15 minutes of usage.

The access terminals, like the Millennium phone, accept credit cards, phone cards, company or long distance phone card. The Millennium phone also accepts real money.

GTE plans to place the first cyberbooth at Ala Moana near center stage at the bottom of the escalator.

Library patrons surf the Web

The Hawaii State Library upgraded their online capabilities. As before, patrons can dial-in from a home computer or at any state library to access the catalog system. Part of the upgrade included recabling the libraries with fiber optic lines. The system connects to the Internet through the Maui Super Computer Center, the state's fastest connection to the Net.

Each library has at least one PC in which users can browse the Web with full graphic capabilities. The other terminals at the libraries are set aside for searching the catalog system. The upgraded system also allows Web access through Lynx, a text-only program.

Online access to the library enables patrons to search newspaper and magazine indices and, of course, the state's collection. The full-text of some magazine articles are available online. The Hawaii State Public Library System Home Page is at **http://www.hcc.hawaii.edu/hspls/** and the modem number for dial-up access is 831-6888; from the Neighbor Islands (toll-free) 1(800)982-4436. To connect with a real person on the help-line, call 831-6868.

Guava Graphics releases new software

Guava Graphics announced the availability of several new Hawaii-themed software programs. Four new "pictofonts" (a "dingbat" style typeface in which art symbols replace letters) are available. The new pictofonts are Oriental Motifs, Petroglyph and Tapa Type 1 & 2. They're available in either a PC/Windows or Macintosh platform. Releases planned for the third quarter include three CD-ROM titles: two Hawaiian Clip Art CD-ROMs and Hawaiian Word Processing Tools, Release 2. Hawaiian Screen Savers, which are modules for After Dark screen saver engine, were also released in both platforms. Guava Graphics plans to release two more CD-ROMs, Island Photo Collection and Hawaiian Language Interactive Tutor.

Students of all ages welcome @The Tek Place

@The Tek Place celebrated their grand opening with a day of free Internet access, technology demonstrations and door prizes. @The Tek Place, located close to downtown at the corner of Cooke Street and Kapiolani, provides "just-in-time guidance." According to Peter Yamaguchi, co-founder and president, "With so much to do and so little time, people need a place where they can learn to use technology to do what they need to do, when they need to do it."

@The Tek Place offers courses for kids of all ages. "We're a family center and we want families to come as an activity . . ." said Yamaguchi. Yamaguchi may be on the cutting edge of a new trend for family entertainment. Instead of spending the day at a museum, for example, the techie clan may choose to head for a technology center.

People can take classes, pay by the hour to work on a project or purchase a monthly membership. "The whole place is project-focused," said Yamaguchi.

Both Macintosh and Pentium computers are available. At @The Tek Place people can access the Internet, develop a Web site, digitize a picture, produce an interactive multimedia program, burn a CD-ROM, chat in virtual worlds and even do something as simple as write a letter.

In an interesting contrast to the popularity of trendy coffee houses with Internet access, @The Tek Place sells fresh, micro-roasted coffee on the side. But computing, technology and multimedia is

still the focus in this case. For more information call 596-2525 or check the Web site at **http://www.tekplace.com/**.

Circuit City enters Hawaii's market

Circuit City, the mega-electronics retailer, is the latest mainland-based company to enter the Hawaii market. Located on the old Star Market site in Pearlridge, Circuit City will be opening its doors in November. With more than 300 stores nationwide, Circuit City specializes in consumer electronics and sells a variety of products including car stereos, VCRs and computers.

Technology Council launched

About 100 people attended the inaugural seminar of the Technology Council to hear guest speaker Hatim Tyabji, president, CEO and chairman of VeriFone. The Tech Council's continuing mission is to encourage the growth of a Hawaii-based technology industry in the Pacific. The Council is a project developed by the Oahu Economic Development Board (OEDB), a private-sector, non-profit organization.

Lucien Wong, co-chair of the technology industry council of the OEDB, formerly known as the Economic Development Corporation of Honolulu (EDCH), welcomed Nick Susner, CEO of SETS Technology, as the incoming private-sector chairman for the Tech Council. The OEDB is a private-sector organization. They don't receive state funding. However, for the first time this year, they've gotten funds from the City & County of Honolulu.

The OEDB set up five industry clusters: technology, visitor industry, health care, defense and education. Those clusters were identified as driving the economy; they create job opportunities both directly and through services which support the industries. The OEDB was formed in 1984 by the Hawaii Business Roundtable.

KSSK offers free screen saver

Internet surfers can ride the tube to KSSK's home on the Web and download a free screen saver for Windows. The screen saver offer is part of a revamped KSSK page. Promotions director, Scott Mackenzie, said, "In preparation for our new site, we 'blew up' our original, animated page and started from scratch." Enthusiasts have sent email to the station from all over the world, including Greenland and Berlin. Hang ten to the site at **http://www.pixi.com/~kssk/**.

Hawaii Biological Survey receives funding

The Hawaii Biological Survey (HBS) collects and evaluates data about the flora and fauna of the Hawaiian Archipelago. The HBS recently received funding to help develop World Wide Web tools for the display and analysis of ecological data. HBS is creating an integrated WWW database about Hawaii's biodiversity.

The site currently includes images and color photographs of Hawaiian insects, birds and plants. Detailed information can also be accessed about certain organisms found in Hawaii.

The Taxonomic Authority Files contain species checklists for 22,000 species of Hawaiian organisms. Search for the complete data on your favorite arthropods, land or freshwater snails, flowering plants, mammals, reptiles, amphibians or birds. The HBS was established in 1992 as a program of the Bishop Museum. Check the Web site at **http://www.bishop.hawaii.org/bishop/HBS**.

Computer City opens second Hawaii store

Computer City, a division of Tandy Corporation and one of North America's leading computer superstore retailers, will open a second store in Hawaii. Located near KHON-TV at 1108 Auahi Street, completion is due in October. Computer City currently operates one location in Waikele and more than 109 stores in the U.S., Europe and Canada. Computer City carries more than 3,800 different name brand products including computers, printers, software, books, furniture and accessory items from leading vendors such as AST, Compaq, Hewlett Packard, IBM, Packard Bell, Power Computing and Toshiba.

Hawaii Company launches visitor industry Internet supersite

H&S Publishing announced the unveiling of the Hawaii State Vacation Planner, located on the Internet at **http://www.hshawaii.com/**.

The Hawaii State Vacation Planner is Hawaii's largest and most comprehensive WWW travel site. The site is a central Hawaii "gateway" and features a wide array of comprehensive travel information specific to Hawaii's four major island visitor destinations. The statewide system combines genuine and original editorial content with the liberal use of beautiful photography. Designed for fast and easy use by consumers, the Hawaii State Planner offers prospective visitors to Hawaii a unique opportunity to read about and view all of Hawaii's major islands in detail from the comfort of their own home or office, anywhere in the world.

Send your news releases to **Hawaii's Web & Internet News**, *P.O. Box 2782, Ewa Beach, Hawaii 96706-0782; fax: (808)672-5511; email : kbucar@lava.net.*

The Mac Beat

Run Windows 95 on your Mac

You can have it fast and expensive, or cheap and slow

by John Rizzo

You can't beat 'em, but you don't want to join 'em, either. This is the dilemma of Mac users who face giving up their Macs to use a piece of mission-critical Windows software. Usually, it's a very specialized program, such as a database written in Microsoft Access or accounting software for plumbing contractors. Fortunately, you can have your Mac and Windows, too.

Running Microsoft's operating systems on Macs isn't new, but it has definitely improved with the latest batch of products. There are two ways to go, a hardware coprocessor card or a software-only solution. The hardware solutions are fast but expensive, while software is slow but cheap. This fact still holds true with the products I tested, Apple's newest PC Compatibility Card and Insignia Solutions' SoftWindows 3.0 (which runs Windows 3.11) and SoftWindows 95.

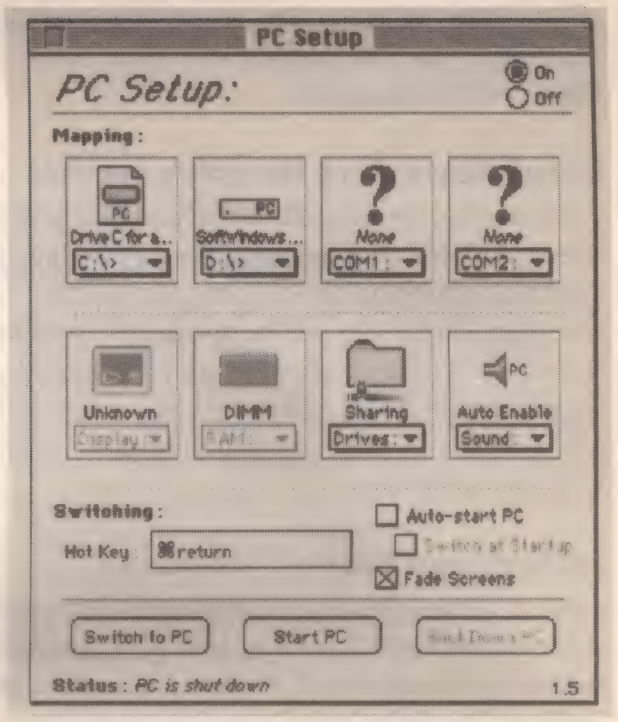
Put a PC in Your Mac

PC coprocessor cards contain an Intel or compatible processor, video RAM and a slot for a system RAM. You can buy PC coprocessor cards from Apple, Reply (which licenses its hardware design and interface software from Apple), and Orange Micro. (Orange Micro and Reply will have new models available later this year.) Orange Micro usually offers faster processors and higher-end features, such as PC I/O ports, and offers the only solutions that let you run Windows NT and OS/2 on a Mac.

The Apple PC Compatibility Card I looked at fits in a PCI slot and is powered by a 100 MHz Cyrix 586 processor, which is about as fast as a 75 MHz Pentium. It also produces Sound Blaster-compatible sound (a feature Orange Micro also offers), which enables your Mac to play the audio of PC multimedia CD-ROMs and game software.

SoftWindows emulates a 486 processor in software. A 486 PC is bit slow for Windows 95, and this is reflected in SoftWindows 95, where it takes three or four seconds to open or close a desktop window. SoftWindows 3.0, on the other hand, is about 35 percent faster than version 2.0, and feels quite snappy running Windows 3.11.

SoftWindows 95 and SoftWindows 3.0 both support Sound Blaster audio, though not in DOS. Both versions come with LAN Manager and Novell NetWare client software for connecting to PC networks over a variety of protocols.



With Apple's PC Compatibility card, you boot up the PC through a control panel.

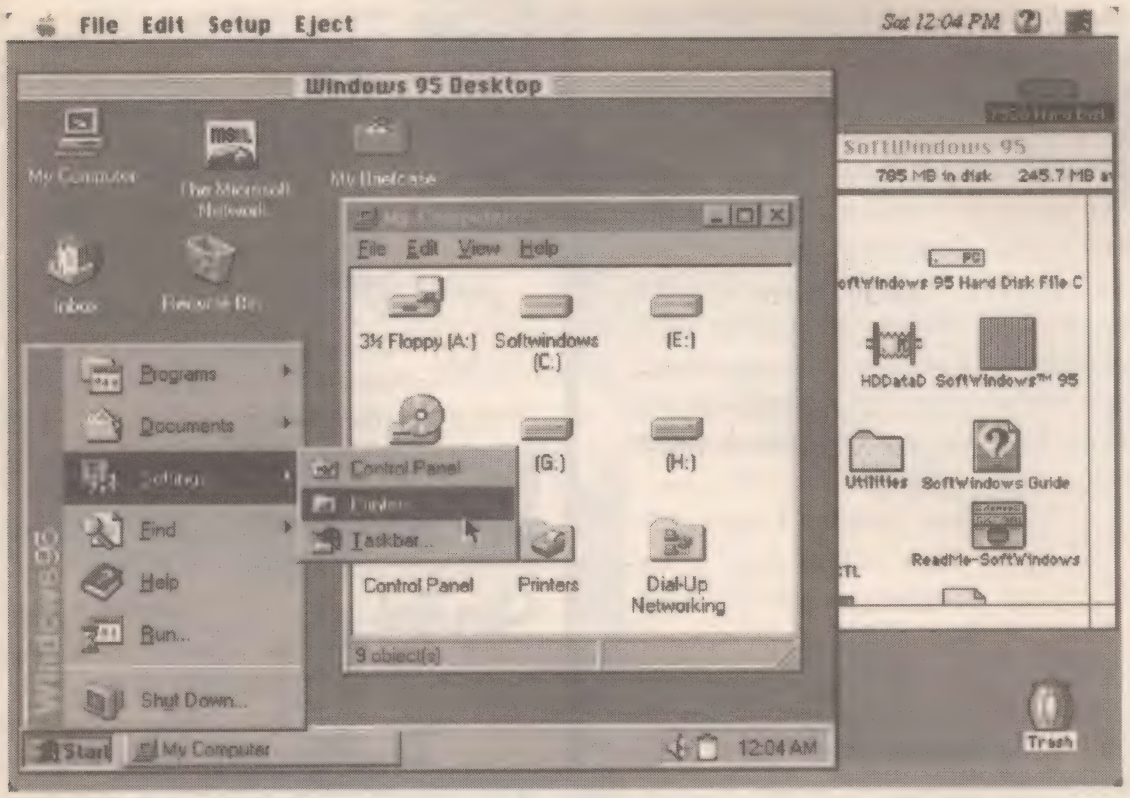
Installation and Memory

Installing the Apple PC Compatibility Card is a Mac-like plug-and-play affair, but installing the software is more like the arduous process PC users experience. First you have to install System 7.5 Update 2.0, if you don't already have it. Then, you install the PC Compatibility software from an *Apple* CD-ROM. After that you install DOS 6.22 from the supplied Microsoft floppies. You're not done yet. Now, you install some driver software from an Apple floppy disk. If you want to use Windows 3.1 or 95, you buy a copy and install it. Finally, if you want to use the Sound Blaster-compatible sound, you install some more software from yet another Apple CD-ROM.

In contrast, SoftWindows installs everything you need, including Windows, with the press of a single button. You'll have to tweak the SoftWindows memory settings to get the most performance, but this is well-documented in the manual and in "readme" files.

Having enough memory is crucial to performance for both the Apple PC Compatibility Card and SoftWindows. Remember, you are simultaneously running two operating systems, Mac OS and Windows. Plan on at least 8 MB for Windows 3.11 and 16 MB for Windows 95. The Apple card comes with an 8 MB DIMM, you'll need to replace it with a 16 MB DIMM for Windows 95.

For SoftWindows 95, you really need at least 32 MB in your Mac: about 7 MB for System 7.5, 9 MB for the SoftWindows 486 emulation and a cache, and 16 MB for Windows 95. For SoftWindows 3.0, a 24 MB will do fine. Don't run virtual memory or RAM Doubler with SoftWindows, as they really slows things down.



SoftWindows 95 running in a small window with the finder in the background. You can also run Windows 95 to fill your Mac's screen.

Running Windows

SoftWindows (as well as the Orange Micro cards) let you display Windows in a Mac window. You double click on an application file and Windows boots either in a Mac window or on the entire screen (your choice). With the Apple and Reply cards, the PC must fill a screen. Both SoftWindows and the PC Compatibility Card let you play DOS and Windows CD-ROMs in your Mac's CD-ROM drive, print to your Mac's printer, and copy and paste between PC and Mac programs.

All Windows-on-Mac products create a Mac file that acts as a virtual C: drive, the PC boot drive. Apple's card lets you mount the virtual C: drive on the Finder's desktop, so you can access your PC files from the Mac side. SoftWindows only gives you access to the PC drive from within DOS or Windows. However, SoftWindows lets you assign any Mac disk, folder or server as a PC shared drive. SoftWindows also comes with a very useful Hard Disk Expander utility. If you fill up your virtual C: file, you can increase its size while keeping all your PC files intact.

Hard or Soft?

Overall, the price and features of SoftWindows makes it my first choice, though it will be too slow for some uses. If you're going to run (non-game) DOS software, SoftWindows 3.0 will work great. It will also run 16 bit Windows 3.1 software fairly well. (You can upgrade SoftWindows 3.0 to SoftWindows 95 simply by installing Microsoft's Windows 95 upgrade.)

If your Windows software won't run well on a 486 or you plan on spending a lot of time running higher-end Windows applications, you'll want to spring for a coprocessor card. The cards are also better suited for the PC software most coveted by Mac users — DOS games.

Product Information

PC Compatibility Card (Windows not included)
7" PCI card with 100 MHz Cyrix 586, $799
12" PCI card with 100 MHz Pentium, $1,049
Apple Computer
(408) 996-1010
http://www.apple.com

SoftWindows 95 for Power Macintosh, $379
SoftWindows 3.0 for Power Macintosh, $299
Insignia Solutions
408-327-6000
http://www.insignia.com

The Year 2000:
How large a headache?

by Bill Gates

QUESTION: ***Is it true that the worldwide computer community is going to have a massive headache when we reach December 31, 1999?***

Answer: There will be a headache but how much pain it will cause remains to be seen. One computer services company has called on governments to begin spending money now to avoid a "catastrophe of global proportions."

This may overstate the problem, but it's true that beginning in the year 2000 some programs that compare dates will start making mistakes. Errors could appear in the behavior of software that computes interest, organizes information chronologically or figures out a person's age.

A computer could miscalculate your age and deny you retirement benefits. Inventory systems could order stock at the wrong time and in the wrong quantity. Financial deadlines could be missed.

The underlying problem is that certain computer programs, primarily ones written years ago for mainframe computers, hold only the last two digits of the year when storing a date. The year 1996 is stored as 96, the year 1997 as 97.

For the first 50 years of the computer age, the two-digit shortcut didn't pose much difficulty. In the early years, shortcuts such as this one were necessary because programmers had to coax as much performance as possible from machines with limited memory and storage.

But a little more than three years from now, when December 31, 1999, gives way to January 1, 2000, at the turn of the century, the programs that still use the two-digit year shortcut may not be able to tell the difference between the years 1900 and 2000.

The good news is that most PC users won't be affected. There shouldn't be much of an issue with up-to-date personal computer software. Microsoft software, for instance, won't cause problems.

The bad news is that some businesses and agencies that still rely on aging mainframe software will face a challenge.

Mainframes have been called software museums because it's not uncommon for mainframe software written 30 or 40 years ago still to be in use. Back then, no one was worrying about the end of the century.

Some PC users will face problems at the end of the century, too. Usually this will be because a PC is hooked up to a mainframe or because the PC is running a custom-built software application developed for one company's use.

One computer services company has called on governments to begin spending money now to avoid a "catastrophe of global proportions."

Custom software applications, including macros, sometimes don't meet the same rigorous programming standards as commercial applications.

Before the year 2000, companies that rely on old software or custom software need to examine it. This will be expensive when there are millions of lines of programming code to be reviewed, especially if the people who wrote the code have retired or died.

I don't want to make too much of the date problem because it's only one example of how changes in the world force companies to reevaluate their software. Changes in tax laws reporting requirements and even product lines can prompt the modernization of a company's computing systems.

Internet Basics

Elementary email

More than just for sending messages

Whether you've got nothing more than an email connection to the Internet or access to the complete range of tools via a dedicated line, don't ever think that email is just for sending messages. If you want to know the latest weather, news, send a free fax, join an interesting discussion or any one of hundreds of other services, just fire up your email client.

Electronic mail was one of the original applications on the Internet and the networks that preceded it and most agree it still is the most useful of all applications on the global network today.

The reason — email is almost 100 percent universal, being the only application that just about everyone connected to a computer network has access to. The World Wide Web and newer services are only available to a smaller percentage of Internet users, but email offers incredible connections to distant networks and mailboxes all over the world.

Thanks to a growing number of gateway servers, anyone with access to Internet email can also access newer services such as World Wide Web and older resources such as Usenet, gopher and File Transfer Protocol, albeit not in interactive mode.

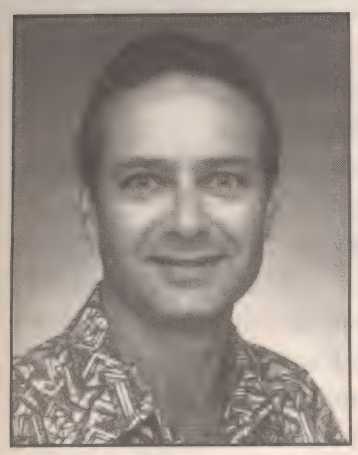
This is the first of a series of features that is intended to enable you to get more from your email connection. Part two will focus on mailbots and auto-responders that serve information. Part three looks at mailing lists and how to access other services via email.

As with any form of messaging a correct address will ensure safe delivery of the contents rather than a returned, or bounced, message informing you "recipient: not known." Throughout this series, we will be giving standard Internet addresses of the form user@host.domain.

The part before the "@" symbol is the user account name and specifies the mailbox on the system. The part after, specifies which computer on the Internet the mailbox is held at, and always takes the form of at least two words separated by a period. In international addresses, the last part specifies the country whereas it specifies the type of organization in US address, although these are now very loose rules.

If your email address looks like this, then it probably is an Internet email address and you should be able to send messages to other addresses by just typing them in as is. If your address looks different, or you aren't sure, check with your systems administrator or the person responsible for *your* connection.

Who's Who in Hawaii's Telecom

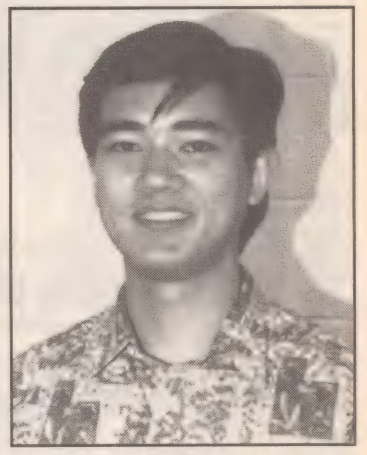


Jeff Brennan

Robert Volker

Tim Archangeli

Mark Tagawa



Paul Okimura

Jeff Brennan has joined PrimeCo Hawaii as new vice president and general manager for its launch of new digital wireless telephone service. Jeff comes to Honolulu from Portland, Oregon, where he was general manager of sales for U S West with more than 15 years of telecommunications experience in cellular, satellite and network service operations.

GST Telecom Hawaii, Inc. has named **Robert Volker** to vice president and general manager of its Hawaii operations. He will be responsible for GST's sales, operations and maintenance of a digital microwave network linking the islands of Oahu, Molokai, Maui and Hawaii. Prior to his position with GST, Volker spent 12 years with Pacific Bell and served in various top management positions.

Tim Archangeli joins the new Computer City, Ward location as general sales manager. Prior to opening the new store, Tim held the position as general sales manager in training at Computer City, Waikele store. Prior to joining the Computer City chain, he was the general manager of Marshall's above Sam's Club in Pearl City.

Coffee Haven was recently acquired by its new owner **Mark Tagawa**. Mark previously held positions with GTE Hawaiian Tel. Coffee Haven's new hours are 7am-12am Monday through Friday; 8am-12am Saturday, and 8am-9pm Sundays.

Paul Okimura joins On Site Computer Systems to handle all public relations and marketing for this expanding computer retail company. On Site also specializes in networking and computer maintenance. Paul comes to On Site with over ten years of hands-on-computer experience.

Corporate Intranets

Many firms already using or planning internal networks

by Jacqueline Emigh

Fully 85 percent of U.S. corporations are implementing, piloting or planning an intranet, according to a newly released study. On already established intranet sites, about 45 percent of corporate default home pages are being managed by employee communications departments, with only one-third directly in the hands of IT (information technology) departments, said Susan Wiener and David Leveen of Cognitive Communi-cations.

Despite the rising prevalence of intranets, however, most sites are not yet living up to their potential as vehicles for internal communications, said the intranet researchers.

More than 75 percent of organizations with existing intranets use "centralized, over-arching internal home pages," according to the survey results. Cosponsored by Cognitive Communications and Xerox Corporation, the study is based on responses from 162 Fortune 500 companies, together with some privately held corporations.

Over half of the organizations with established intranets are using company-mandated home pages with no default changes allowed. Another 27 percent have default home pages, but let employees substitute the defaults manually. Meanwhile, only 16 percent of these sites "give employees the freedom to choose their own home pages."

With the corporate home page typically serving as employees' "window" to the intranet, it should reflect the unique culture of the organization, maintained Wiener, a partner at Cognitive Communications.

"You can tell a lot about a company through the art work on the walls and the people at a meeting. Similarly, corporations should think out the ramifications of the color, graphics and technologies they use on their intranets. Each intranet should be different," the consultant advised.

Intranet content should be aimed at the needs of employees and be frequently updated to avoid becoming "stagnant" added Wiener.

Interactivity and a "collaborative work environment" are other objectives that organizations ought to pursue, she recommended.

Today, though, most intranet home pages are still static "catalogs" consisting of print-based information converted into HTML (hypertext markup language). Moreover, many home pages are based on a "top down" approach; the intranet acts as a showcase or mouthpiece for various departmental "silos" within the organization.

One silver lining to this situation is that intranets are creating new opportunities in both the employee communications and IT arenas, according to the two consultants.

Challenges for communicators include offering content that is "meaningful" to employees; determining how this content should be linked; and making sure that content is updated frequently enough, Wiener suggested.

IT pros will also get a chance to shine, by using their knowledge and skills to integrate technologies that will provide better support for internal communications, said Leveen, another partner at Cognitive.

But IT specialists should treat new Web technology as a means rather than an end. "The bottom line is what the technology can do for the end user," added Leveen.

VoiceStream Wireless Hawaii

Tomorrow's technology for Hawaii . . . today!

by William Reuben Barker

The first PCS (Personal Communications Services) business to locate here in Hawaii is VoiceStream Corporation located in downtown Honolulu. VoiceStream's parent company is located on the mainland, but VoiceStream's general manager, C. Harvey Luke, is a long-time kamaaina. Luke pointed out that most of the people who helped launch VoiceStream's Hawaii operations are Hawaii residents as well.

When asked about why VoiceStream decided to pursue the PCS market in Hawaii, rather than some other location, Luke said that, "Hawaii was chosen first, because the team that was put together here could get the infrastructure built faster than they could on the Mainland." Luke also added, "Hawaii is a very nice market in terms of user density within the general population. There's a lot of users." Luke explained that the high density of users is also an obstacle for a new Hawaii business because of the high market penetration by existing carriers. Luke said that VoiceStream's plan was to offer value-added services on their network and telephones and actually increase the existing market by adding VoiceStream's high-end technology as an option.

VoiceStream is committed to staying actively involved in Hawaii's communities, and provides sponsorship to several local organizations such as SHOPO (State of Hawaii Police Officers Organization) and the first annual Hawaii's Deaf Celebration.

Geographic Coverage

VoiceStream's range of coverage is currently available to all of Oahu and Maui and to the Lihue city area on Kauai. Starting in the fall of 1996, these service areas will be extended to the Big Island and to the rest of Kauai in the following spring of 1997. VoiceStream's coverage goal is to achieve full state coverage within the next two years. The corporation is also currently negotiating cooperative roaming agreements with major U.S. Mainland, Asia, Australia and Western Europe PCS carriers.

Established in February 1996, VoiceStream Wireless Hawaii becomes the first company in the state to offer these unique wireless products and services. VoiceStream's digital PCS technology utilizes next generation wireless devices in an entirely new category of voice, two-way messaging and high-speed data transfers.

VoiceStream's next generation in wireless devices embrace the new philosophy of multi-functionality by combining a wireless phone, pager and answering machine in one device.

The wireless devices embrace the new philosophy of multi-functionality by combining a wireless phone, pager and answering machine in one device or handset. The handset looks like a conventional cellular phone except for the "smart" card slot on the back, and a much easier instruction-driven interface to activate the features of the phone. Two models of phone are available: the Motorola Spirit and the Nokia 2190.

These devices operate in higher frequencies (1850-1990 MHz) of the radio spectrum and allow more information to be transmitted at greater efficiency than in the lower frequencies. (Cellular networks operate in the 800 MHz band). This technology adheres to the international digital radio standard first created by the European Telecommunications Standards Institute (ETSI). This standard is referred to as GSM or Global System for Mobile Communications. GSM equipment manufactured in the U.S. includes AT&T (American Telephone & Telegraph), Motorola and NorTel (North American Telephone). GSM is a proven technology with over 20 million users in 90 countries around the world.

One of the most advanced features of VoiceStream's digital technology is the use of smart cards. VoiceStream's phones will not operate without the smartcard. All VoiceStream's customers receive a smart card with electronic signatures and identification data embedded on a programmable microchip on the smart card. The device will read the card when inserted into a slot on the handset. A unique identifying PIN (Personal Identification Number) code such as bank cards have is also required to operate the device.

This smart card versatility also allows the user to operate a PCS device other than their own because billing and call charges respond to the smart card rather than the phone itself. PCS devices and handsets are being supplied by hotels, airports and other such service organizations. A roaming PCS user may use any other PCS device and simply insert their smart card into the slot, enter their PIN number and perform the desired operations.

All billing information is highly detailed, which is great help if an expense account is used, and per-

VoiceStream digital PCS (personal communication service) phone.

The parent company of VoiceStream Wireless Hawaii is the Western Wireless Corporation with headquarters in Issaquah, Washington. Western Wireless (formed in July 1994), employs 1,800 people in both the cellular and PCS markets. The company operates cellular phone systems under the Cellular One name in 15 western U.S. Mainland states. Western Wireless became the first company to launch commercial services after being awarded a license to operate in the PCS spectrum by the FCC (Federal Communications Commission).

Hawaii is one of the six MTA's (Major Trading Areas) designated by FCC license. VoiceStream Wireless Hawaii was established to provide PCS coverage to customers located in the Hawaii MTA. VoiceStream Wireless Hawaii provides jobs for 100 people in Hawaii, with future plans to double that amount.

sonal and business calls are both made on the same device. Smart cards may also be programmed to allow only certain kinds of calls (such as long distance) to be made without further authorization. Subscribers may also store up to 25 names on the smart card itself. All incoming calls are compared to this stored list, and if a match occurs, the stored name and phone number will be displayed on the phone's monitor. All transmissions are digitally encrypted to prevent the theft of a subscriber's phone or PIN numbers.

VoiceStream provides customer assistance 24 hours a day, seven days a week toll free at 1-800-937-8997.

VoiceStream's administrative office is located at Alii Place (Bank of America Building), 1099 Alakea Street, Suite 1540.

Their retail operations consist of three locations on Oahu at 1100 Alakea Plaza, Suite 101; Kahala Mall (upper level), 4211 Waialae Avenue, Suite UB2B and in Aiea at 98-1277K Kaahumanu Street. VoiceStream's office on Maui is at 425 Koloa Street, Suite 102, Kahului, Maui, HI 96732.

For additional service value, there are many powerful features included in all packages at no additional charge, such as:

- InterIsland toll-free service
- Caller ID (if Caller ID is available)
- Call waiting and call hold
- Answering service and numeric messaging
- First incoming minute free
- Expanded local calling areas
- Detailed billing

Products and services

VoiceStream offers a full range of wireless products, services and accessories. (All services require a one-time $25.00 activation fee, and charge 10 cents a minute for PCS to PCS local phone calls).

Basic **Personal** package: $19.95 monthly, (15 minutes free air-time), 25 cents a minute (over the first fifteen) additional airtime.

Personal Plus package: $29.95 monthly, (60 minutes free air-time), 24 cents a minute additional airtime.

Pro package: $59.95 monthly, (200 minutes free airtime), 23 cents a minute additional airtime.

Pro Plus package: $99.95 monthly, (400 minutes free airtime), 21 cents a minute additional air-time.

InfoStream makes the virtual office a reality. Connecting a VoiceStream digital PCS phone to a laptop computer, people can access email, office databases and the Internet when they're away from the office.

Check out these sites:

For more information on PCS technology visit the **FCC's Web site** – http://www.fcc.gov.
VoiceStream's Web site – http://www.voicestream.com

MHPCC:
The Hawaii Supercomputing Challenge

Students and teachers learn how to utilize technology applications in education

by Marsha Mooradian

The Hawaii Supercomputing Challenge is a new type of learning experience and competition that exposes teachers and students to global communications, information, and creative, innovative problem solving. The goal of this program is to provide students and teachers with the skills needed to meet the challenges of today's information-based society.

The Supercomputing Challenge is a program in which teams of students and teachers work together to complete projects using advanced computing resources. The program started in July and runs through to November.

Each team is composed of students and a sponsoring teacher who defines and collaborates on the project with the students. In addition, each team utilizes a technical advisor from the community, a parent or another teacher.

The program will end with an awards day in the fall. One adult advisor and one student from the Best in the Show category will be chosen to represent Hawaii at the Supercomputing '96 Conference in December.

Throughout the program, help and support is provided by a network of mentors, project facilitators and technical staff from sponsoring organizations.

The team of students participating in the Challenge range from grades 7 through 12. The program has no grade point, class enrollment or computer experience prerequisites for students. The important requirement for participating is a desire to learn how to utilize technology applications in education.

The Challenge was offered at minimal cost to the participants. It is sponsored by a partnership between Maui High Performance Computing Center (MHPCC), Hawaii State Department of Education (DOE), University of New Mexico, Phillips Laboratory, SETS Technology and Tech Corps Hawaii.

As the Challenge concludes, students and teachers will have learned to program with HTML, to analyze data, to present their results and much more.

For more information contact Marsha Mooradian at (808) 625-5262 or by email at **marsham@mhpcc.edu** .

Check out this site:
http://www.mhpcc.edu/~scc2/

The Hawaii Supercomputing Challenge Program Description

The Hawaii Challenge is designed to provide students and teachers with enhanced educational opportunities.

Goals

- Help self-directed learners to acquire and apply computational skills needed to be successful in a rapidly changing information-based world.
- Support and enhance the core content areas of english, math, social studies and science by encouraging students to use a global thematic topic for their Challenge proposal.
- Integrate reading, research, writing, project homepages development and content integration to produce the final presentation.
- Foster excitement for learning, encourage creativity and nurture a spirit of continuous experimentation and discovery.

Objectives

- Use computational tools to research, organize, problem solve, collaborate, communicate and create multimedia presentations.
- Develop an awareness of the Internet and a proficiency for using it as a resource and communication tool.
- Enhance the opportunities for students and teachers to work together collaboratively to address global issues.

ITC (Information Technology Centers)

Central District ITC	Mililani Tech Park, Bldg. Room 55
Windward District ITC	King Intermediate School, Building M
Honolulu District ITC	Kalani High School - Room A-13
Leeward District ITC	Kapolei Elementary School, Room G202
Kauai District ITC	Kauai District Office
Maui District ITC	Maui High School - TV studio
Molokai ITC	Maui High School - TV studio
Lanai	ITC Maui High School - TV studio
Hawaii District ITC	(to be announced)

Facilitators to support teams

Sixteen instructors were identified as lead facilitators. This group learned how to train and provide support to project team members. They will help build home pages that will be part of the instruction support.

Timeline

July 25-26
Train the facilitators - Two day workshop at MHPCC
July / August / Fall
Cable TV Programs - Challenge Project Development
August
Train the teams - ITC Onsite Training seminars
Computer Challenge Teams working at each school site
September / October
Work on Projects with Monthly update reports
November 5
Mid Point Presentation
November 17-22
Supercomputer Challenge
December
Super Computer Conference '96

Web Watch

Live Aloha

by Kristine Bucar

Those of you older than 30, may remember Arlo Guthrie's song "Alice's Restaurant." At one point during the album-length composition, Guthrie comments that if one person went before the draft board and sang a bar of the Alice's Restaurant song, the board would think him really sick and not take him. If two people did it, they wouldn't take them either. If three people sang it, they might think it's an organization and if 50 people did it, they would think it's a movement.

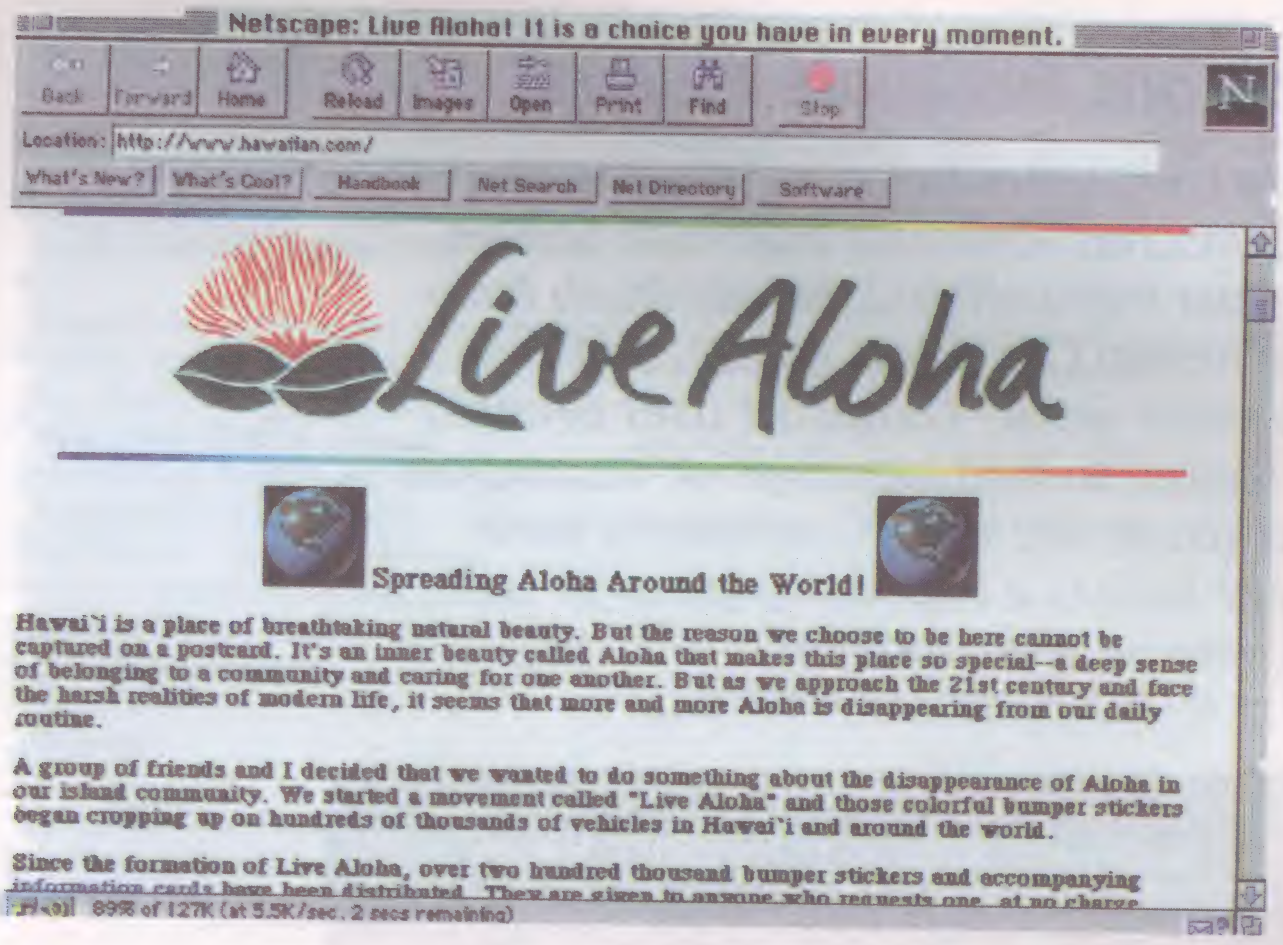
That's what's happening with the concept of Live Aloha. The slogan was crafted by Paul Klink, director of Direct Marketing Managers of Hawaii. The slogan and an ohia lehua flower designed by Sig Zane appear on a bumper sticker that acts as a reminder of the concept of aloha. More than 500,000 copies have been distributed for free.

Klink created a Web site along the same theme, complete with an Internet bumper sticker for Live Aloha. The Web site has logged more than 1.7 million visits and spawned two other Live Aloha pages. What started as a simple idea of spreading the aloha spirit, could become a worldwide Internet movement, with Live Aloha pages scattered about the Web.

The Live Aloha page includes an explanation of how the Live Aloha movement started, suggests 12 acts of aloha and retells several Hawaii myths. At the page, Klink writes:

But what does Live Aloha stand for? Perhaps Pilahi Paki explained it best with use of the Hawaiian huna. Each letter in the word Aloha represents another Hawaiian word, and together these five words most completely express the truth of aloha:
Aloha is the coordination of mind and heart . . . it's within the individual. It brings you down to yourself. You must think and emote good feelings to others.

Check out the **Live Aloha** site at:
http://www.hawaiian.com.
Other **Live Aloha** pages:
http://ice.ucdavis.edu/~robyn/livaloha.html
http://www.ohana.com/livealoha/



Live Aloha perpetuates the spirit of aloha, not only in Hawaii, but throughout the world.

***A** stands for AKAHAI, meaning kindness, to be expressed with tenderness.*
***L** stands for LOKAHI, meaning unity, to be expressed with harmony.*
***O** stands for OLU OLU, meaning agreeable, to be expressed with pleasantness.*
***H** stands for HA AHA A, meaning humility, to be expressed with modesty.*
***A** stands for AHONUI, meaning patience, to be expressed with perseverance.*

Kristine Bucar is a Makakilo-based freelance writer focusing on technology, computing, Internet and now, aloha. Visit her Web site called Makakilo Hale at http://www.lava.net/~kbucar/ *or send her email at* kbucar@lava.net.

How to open a branch office.

First. Find a branch. Second. Plug a Honolulu Cellular Data Interface and cellular phone into your laptop computer. Congratulations, you're now open for business. It's that simple.

Anything that can be accessed on a desktop computer can be retrieved or sent on a laptop via cellular phone. You're no longer tethered to a phone line. It's the "Mobile Office" unleashed.

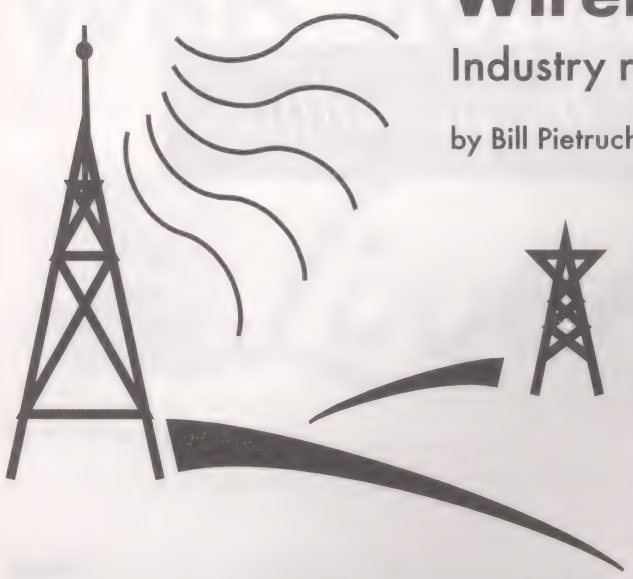
To access more information on Honolulu Cellular Data systems call Maizie Miyashiro, Wireless Applications Specialist, at 627-8512 and find out just how far you can take your business.

Honolulu Cellular
Hawaii's Cellular Leader

Wireless Growth Sets New Records

Industry revenues top $20 billion

by Bill Pietrucha



The past 12 months have been the year of records for the wireless telephone industry, as it added 10 million new customers, grossed over $20 billion in revenues and cut the average monthly bill to below $50.

According to the latest industry survey released by the Cellular Telecommunications Industry Association (CTIA), the phenomenal growth of the wireless phone industry in the United States continues to forge ahead.

For the year ending June 30, 1996, the survey showed that for the first time, more than 10 million new customers signed up for service during a 12-month period, 13 percent more new subscribers than the previous year.

"To put this in context, the wireless era began in 1983 with the first cellular system and it took nine years for it to reach 10 million subscribers," said CTIA spokesperson Tim Ayers.

The 38.2 million subscribers at the end of June accounted for 14.5 percent of the entire US population, Ayers said, with another subscriber being added every 2.8 seconds.

Industry revenues also topped $20 billion for the first time in a year's period, with revenues totaling $21,525,861,000 for the 12 months.

This was a 31 percent increase over the $16,451,242,000 in revenues for the year ending June 30, 1995, Ayers said.

The average monthly bill for a wireless phone is now almost half of what it was in 1987 when CTIA began collecting billing information, Ayers said. In December 1987, the average monthly wireless phone bill was $96.83, with an average call length of 2 minutes and 20 seconds.

The latest figures from June 1997 show that the average monthly wireless phone bill dropped below $50 for the first time, to $48.84, with an average call length of 2 minutes and 14 seconds.

"This is particularly significant," Ayers said, "in light of a March 1996 survey by Peter Hart & Associates which found that 64 percent of adults who do not currently own wireless phones expect to subscribe in the future."

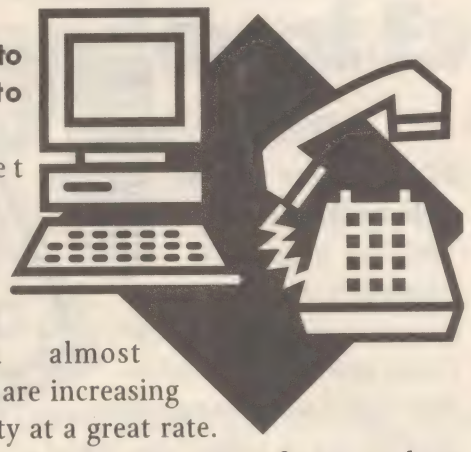
The survey also showed that cumulative capital investment in the economy by the wireless industry now totals more than $26.7 billion.

In the preceding 12 months, according to the survey, the industry spent approximately $5 billion for equipment and construction, a 23 percent increase in investment over the previous year.

The wireless industry also continues to be one of the nation's hot employment markets, Ayers said, with over one thousand employees being hired each month. Employment was up 21 percent over the previous year, Ayers said.

Ayers said that CTIA began surveying operating wireless licensees on a semi-annual basis in 1985.

Industry NewsBytes



Telephone to Internet to telephone

Internet phone software products are being announced almost weekly and are increasing in popularity at a great rate. Up until now, there have been PC software products allowing long distance phone capability from PC to PC, but Mobius Computer Corp. and VocalTec are claiming to have taken it to another level.

Both companies have announced the "Net to Phone Appliance" that will enable real-time voice communications between ordinary telephone users through the Internet to other telephone users.

Designed for businesses with large long distance phone expenses, the system can incorporate communications that are telephone to telephone, telephone to PC, PC to telephone or PC to PC.

According to Craig Stouffer, president and CEO of Mobius, the "Net to Phone Appliance" servers provide a gateway connection between the Internet and telephone lines, enabling callers to combine the low cost of Internet connections, the convenience of initiating calls from either PCs or telephones and the ability to communicate with anybody with a telephone through the public switched telephone network. These technologies will enable new ways for businesses to communicate between remote offices and with customers. The cost savings in using the Internet rather than the long distance telephone systems can be dramatic.

Matsushita announces first DVD products

Matsushita Electric Industrial Co. has announced its first, and the industry's first, digital video disk (DVD) players. The company will begin selling two DVD players and a TV with integrated DVD player later this year in Japan.

DVDs use laser technology to store up to 4.7 gigabytes of data on each side of the double-sided disk, enough to record 133 minutes of film and sound. DVD drives are also expected to challenge CD-ROMs by offering more than 10 times the storage capacity and better video quality.

Beginning November 1, the company will sell the DVD-A100 and DVD-300 players. The units will be capable of playing back prerecorded DVD video disks, audio compact disks (CDs) and video CDs. The players will be priced at $737 and $905.

Dates for an American launch will be announced at a later date, said the company.

LaundroMac cleans up hard drives

Mac users can now keep their hard drives clean and spiffy with LaundroMac, a suite of disk utilities introduced by The Excelsior Group.

LaundroMac's utilities aim to optimize disk use by identifying redundant or unnecessary files.

App Slimmer trims fat binary applications by removing code not needed for a particular Mac. Helter Skelter finds documentation and help files, allowing users to delete them or move them to another disk. MacUninstaller cleans applications from a drive, including associated files strewn across the disk. Prefs Cleaner searches out and zaps unneeded preference files. LaundroMac costs $69.95.

Motorola unveils mobile phone with nine hours of talk-time

Ever been in the middle of a cellular call and had the dreaded low battery beep start at you? Motorola has the answer, the MicroTAC 8700, a digital phone that has nine hours talk-time or an amazing 170 hours (seven days continuous) on standby on a single charge of a 1,200 mAh (milliamp hours) lithium ion battery.

Announcing the 8700, Don Burns, Motorola Cellular's senior VP and general manager said, "There is nothing more frustrating than running out of battery life when part-way through an important call or when sending a fax on the move," he said. Burns added that the phone is a world class performer, offering far more talk-time than most other hand portables on the market.

Pay as you go paging from SkyTel

Mobile Telecommunications Technologies Corp.'s SkyTel subsidiary said it is partnering with Sony Corp. to bring to market a pre-paid numeric paging service called "Grab 'n Go."

With the new service, consumers buy at retail a Sony MP-1000 numeric pager with 50 pages included, said Johnny Hales, SkyTel spokesperson.

Additional pages can be bought at retail, Hales said. Twenty-five pages cost $39.95, and 100 pages are $69.95.

Dialing a Grab 'n Go pager is just like calling any other numeric pager, Hales said. A person dials the pager's phone number and enters any numeric message, like a phone number, he said.

A different matter is where a person can be paged, Hales said. "We have a nationwide "roaming" service where you can take your paging service with you," he said. After a person buys a pager in Boston and registers for the Boston paging area, they can receive pages in other parts of the US where SkyTel paging service exists through a

"roaming" service, Hales said. A customer is charged for three pages when they get a page out of their local region, he added.

The paging units are expected to hit retailers' shelves in November — just in time for holiday gift giving, SkyTel said. Suggested price for the pager 50 pages combination is $99.95.

CyberWatch security with face recognition

A person's face may become much more valuable than providing good looks to everyone who sees him or her. That's because Miros Inc. has developed a new software product that uses face recognition to access secured areas on a network.

Miros' "TrueFace CyberWatch" is described as the first product of its kind that controls access to secured data by using facial lines. The technology is based on neural networks technology invented by Miros president Michael Kuperstein and the company's Dr. James Kottas, and developed at the Massachusetts Institute of Technology (MIT).

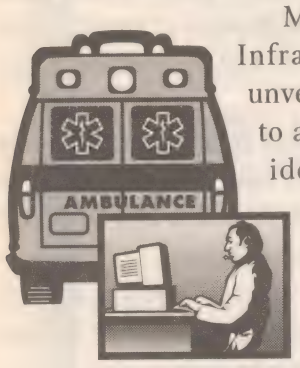
Variability of people's faces is overcome in determining whether an actual face is the same or different than a face image that was previously stored.

TrueFace CyberWatch uses Miros' software and a small video camera on top of the computer monitor to verify computer users when they try to access protected data. TrueFace "snaps" a picture of the current computer operator and compares it to images in a database of authorized users. Continued spot checks are taken to ensure the same user is at the computer.

TrueFace CyberWatch is compatible with PC client/server standards and can be used alone or with other security programs, officials said.

The client runs on Windows 95 and Windows NT operating systems and costs $199. A bundle package is priced at $298 and includes a Connectix camera and the software.

Motorola to offer location ID for cellular 911 calls



Motorola Cellular Infrastructure (CIG) has unveiled its "Wireless E911" to allow automatic location identification of wireless 911 calls. The system is designed to ensure that the cellular 911 call is routed to the nearest public safety answering point (PSAP) and that the emergency dispatcher has the phone number of the cellular user for call back purposes.

"Wireless E911 will allow us to help carriers meet the January 1998 deadline for the first phase of the FCC's new safety requirements for cellular location," said Marty Singer, vice president and general manager of CIG's Wireless Access and Business Development Division.

The FCC's Phase II requirement states that within five years, carriers must be able to pinpoint locations of cellular 911 callers to within 125 meters, or approximately 345 feet, of their locations.

Cellular users will benefit from this function since a growing percentage of 911 calls are made by cellular callers, many of whom are mobile and cannot identify or describe their locations when they encounter problems, Singer said. "Wireless E911 should enable police, fire and medical teams to provide quicker relief in emergency situations."

Ameritech, IBM launch Chicago ADSL trial

Ameritech Corp. and IBM expect to begin a trial of Asynchronous Digital Subscriber Line (ADSL) technology in October. ADSL will allow access to the Internet and other data networks at speeds as high as 1.5 megabits per second, or about 50 times as fast as most modems.

The trial will involve some 200 customers of both companies and it will allow Internet access over existing telephone lines. Customers will be able to carry on voice conversations on their phone lines while they send and receive data.

While ADSL is faster than conventional modems, the special modems needed currently cost more than $2,000. Their prices are expected to decline as ADSL comes into commercial use.

Internet FastFind searches search engines

Now there is a product that will search the Internet searchers, all at the same time. Symantec Corp. has announced Internet FastFind which it claims is the only product that combines simultaneous multi-engine search with notification of changes to selected World Wide Web sites, FTP (File Transfer Protocol) and network sites.

By using the WebFind feature, users can simultaneously search several of the biggest Internet search engines (Yahoo!, Lycos, Alta Vista, Excite, Infoseek, Magellan and WebCrawler). The results are then merged, checked for duplicates, prioritized and presented in one file on your computer. No longer does a user have to search each engine separately.

Internet FastFind from Symantec is available on for an estimated retail price of $49.95.

ECash poses world-wide banking threat

By the year 2000, consumers, businesses, governments and educational institutions worldwide will use electronic cash (ecash) for 9 billion payment transactions. According to a new study by Killen & Associates, this increase in ecash will pose a great threat to some of the biggest institutions in the world.

The report specifically highlights the risk to the retail and banking industries. A spokesperson for Killen said that the report gives little solace to the problems facing traditional retail companies. The report does however, say that the banks can regain the leadership position in payments by moving quickly to leverage their payment transaction infrastructure to fully support ecash.

The Hawaii Visitors and Convention Bureau Calendar of Events

Find out what's going on in October

For more up-to-date information, check out the Web page for October at http://hookomo.aloha.net/~mahalo/calendar/october_hvb.html

SAM CHOY POKE RECIPE CONTEST Oct. 6. Famous Hawaiian chef and celebrity Sam Choy hosts a recipe contest for 20 chefs at the Hapuna Prince Hotel on the Big Island, as part of the Aloha Festivals. Call: 885-0018.

KAPUNA INTERNATIONAL HULA CONTEST Oct. 9-10. This dance contest for master hula dancers and respected elders is held each year at the Kona Surf Resort in Keauhou on the Big Island.

ALOHA FESTIVALS/MAUI & LANAI Oct. 11-20. Cultural celebration of music, dance and history to preserve Hawaii's traditions. Check newspapers. Call: 852-7690.

ALOHA BALL Oct. 11. This fourth annual dress-up event as part of Aloha Festival is held at the Hilton Waikoloa on the Big Island.

MAUI WINTER LEAGUE BASEBALL Oct. 11-Dec. 8. Top American, Japanese and Korean prospects play ball on Maui on their way to the major leagues. Check newspapers. Call: 242-2950.

DA CAR SHOW Oct. 11 - 13. Vintage cars, motorcycles and specialty vehicles are displayed at Neal Blaisdell Exhibition Hall in Honolulu to raise money for the Easter Seals Society. Call: 945-3594.

ZOOFARI Oct. 12. Annual gala fundraiser for the Honolulu Zoo in Waikiki provides an opportunity to get an in depth look at the zoo and its animals and zoologists, while experiencing gourmet dining and enjoying entertainment. 5 p.m. Call: 926-3191.

WAILEA CELEBRATION OF ALOHA Oct. 12. Hawaiian cultural festival with activities for children, food and entertainment at Wailea Shopping Village on Maui. 11 a.m. - 4 p.m. Call: 879-4258.

10TH ANNUAL MCGRUFF FUN RUN Oct. 13 on Oahu.

BANKOH MOLOKAI HOE Oct. 13 sponsored by Oahu Hawaiian Canoe Racing Association, 7:30 a.m. from Papohaku Beach, Kaluakoi Resort on Molokai, 41 miles across the channel, to the Hilton pier in Waikiki. This is a six-person Hawaiian outrigger canoe paddling championship race. Call: 537-8660.

GRAND CHEFS ON TOUR Oct. 14-20. Kea A Lani Hotel, Suites & Villas in Wailea, Maui. Cooking demonstrations and wine pairings and tastings with Roger Verge of Moulin de Mougins, France and Sam Choy, of Sam Choys on Oahu, Hawaii and in Tokyo. Call: 659-4100.

GOVERNORS BALL Oct. 15. Hilton Hawaiian Village in Waikiki hosts this gala fundraiser for the March of Dimes with dinner and dancing and a 1940s theme. Call: 536-1045.

HULA O NA KEIKI Oct. 18-20. Kaanapali Beach Hotel, Maui hosts youth competition, with solo performances of ancient and modern hula. Hawaiian workshops and arts and crafts displays and demonstrations will also be held. Call: 661-0011.

SPOOKY STORIES TOUR Oct. 19 and 26. The Mission Houses Museum sponsors a tour of downtown historic sites, including the Capitol, Iolani Palace, the Royal Tomb and cemetery and the Mission Houses with Halloween storytelling, a scavenger hunt for children, ghost making, cookie decorating, punch and treats.

THE NEW ERA BEGINS Oct. 20, 22. Honolulu Symphony Classical Masterworks series features conductor Samuel Wong and pianist Christopher O`Riley at Neal Blaisdell Concert Hall. Call: 524- 0815.

FOOD & NEW PRODUCT SHOW Oct. 24-27. Annual event at Neal Blaisdell Center in Honolulu. Call: 945-3594.

SENIOR PGA GOLF TOURNAMENT/MAUI Oct. 25-27. This Hyatt Regency Maui Kaanapali Classic Senior PGA tournament, features the senior in a 36-hole event at Kaanapali Golf Course. Call: 661-3271.

HILO MACADAMIA NUT FESTIVAL Oct. 26. All day. This festival, celebrating of one of the most popular nuts in the world, includes cooking demonstrations, entertainment, sporting events, contests and displays of macadamia nuts, their cultivation and use, as an important component of the Hawaiian economy. Nani Mau Gardens, just outside of Hilo on the road to Volcanoes National Park on the Big Island. Call: 966-9301.

IRONMAN TRIATHLON Oct. 26. The most famous triathlon, televised and carried on the Internet internationally, begins with a swim at Kailua Pier and pits top triathletes against one another in a bike and run on the Kona Coast.

WALK FOR YOUR BONES Oct. 26. Annual fundraiser for the Hawaii Osteoporosis Foundation features keiki costume contest, parade and a Trick or Treat Street at Ward Warehouse in Honolulu. Call: 592-2639.

LANAI VISITING ARTIST PROGRAM Oct. 26. Dr. Oliver Sacks, author of *Awakenings, An Anthropologist on Mars*, shares his adventures in writing. Call: 321-4666.

FALL CRAFTS FAIR Oct. 26-27. Honolulu Theater for Youth, sponsors this annual fundraiser at Thomas Square Park in Honolulu from 9 a.m. to 4 p.m. Call: 839-9885.

LAHAINA COOLERS FUN RUN Oct. 27. This is a 5K fun run/walk with a 2K for children in Lahaina, Maui. Call: 661-7082.

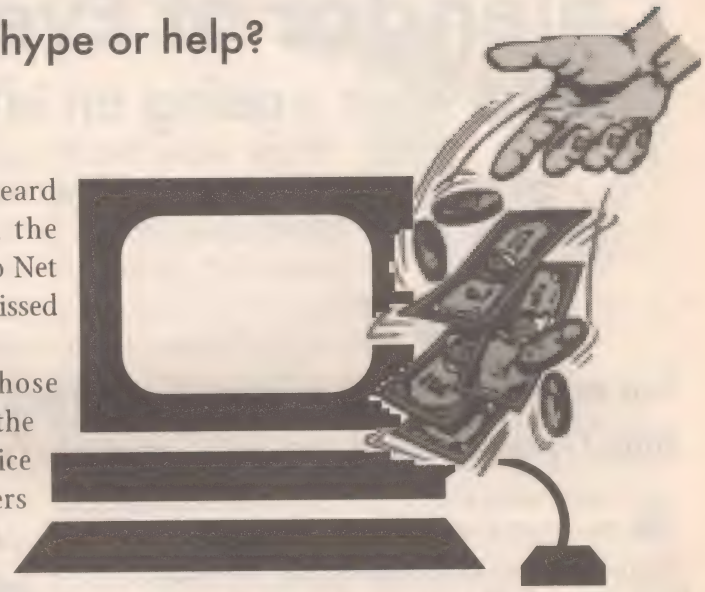
ALOHA CLASSIC WORLD WAVESAILING CHAMPIONSHIPS Oct. 30. Hookipa Beach, Maui. Final event of the Pro Boardsailing Association World Tour with an international field of competitors. Call: 575-9151.

HALLOWEEN IN LAHAINA Oct. 31. Famous throughout Hawaii and beyond, this Halloween party in the streets and restaurants is known for its outlandish costumes and good times on Front Street in Lahaina, Maui. Includes a parade for children, food booths, entertainment and costume contests. Call: 667-9175.

Computers Are for Everyone

The Web PC: hype or help?

by J. Woody Stovall



You've probably heard about the Web PC, the poor man's answer to Net surfing. In case you missed it, I'll try to explain.

We are told, by those who are promoting the Web PC, that the price of personal computers is now out of the reach of would-be users and that something must be done to bring it within their reach again. I disagree. Computers now take less of the consumer's paycheck than at any time in their history.

Web PC promoters say the problem is that the innards of the computer just cost too much. When those parts are combined to make a computer, the average guy can't afford it. What he can afford, they tell us, is a "skinny" computer; one that doesn't have much inside and costs about $500.

$500 is the magic figure, probably because some guy with a calculator determined that if they could sell 20 million of them at $500, they would have $10 billion to hook the rest of us.

Now, let's slow down for a minute. For $500 they will sell you a computer that can't compute because it consists of a cheap keyboard, a processor chip and an interface to your TV. It has no monitor, floppy drive, sound card, hard disk or any other data storage device. It only works when you subscribe to their online service. They have custody of your files and allow you access if you pay the monthly fees.

Of course, your personal, private and confidential files are kept safe from prying eyes by their fool-proof, tamper-proof security system until you log on. Do you believe that? Do you see the outline of a "big brother" plan in this?

What about that 500 bucks? You can buy a keyboard for under $25, a low-end Pentium chip for under $200 and an interface card for about $25. That's $250 for their Web PC parts, and that's at regular mark-up retail. Actually, their Web PC could sell for $195.

How about *free*? As I predicted, some are ready to supply a free Web PC to those who sign up for their Internet service, like cell phones. They can do that because they'll have you hooked for online charges. If you spend as much as 40 hours a month online, you might pay $75 for it, and that's not much time.

I use my computer over 150 hours per month. How long would it take a provider to get his money back on my "free" Web PC? Can a limited income person afford to pay $75 to $200 for online charges? If he can't afford a used PC equipped for Internet access, he can't afford to sign a long-term online "free" Web PC contract with monthly service fees averaging $100.

The Web PC, at this point, is full of hype to say the least, and targets those who can least afford it. So, what else is new?

 J. Woody Stovall is a syndicated columnist who also has a syndicated radio program called Computer Stuff. **Hawaii's Web & Internet News** *readers may send messages about computers to* **woody.stovall@nashville.com**.

Seek and Ye Shall Find...

Maybe you can find what you need, but only if you know how

by John Mather

One of the most difficult things for newcomers to the Web to come to grips with is the sheer scope of the Internet. You've been told that everything you want is there, but how do you find it?

On many of the other online services, there is some feeling of centralization — a place to start, a place where you can find direction. The Web, on the other hand, has more than a touch of electronic anarchy. No one's really in charge or even in control. No one knows where everything is and, even if they did today, they won't tomorrow. The Internet continues to grow at 10 percent per month and each new server, each new user, is an independent entity, linked only by their ability to communicate.

Actually, the title of this article is not intended to imply that finding information on the Web is a matter of luck, serendipity or "brute force" browsing. It implies that you can find what you need, but only if you know how!

So, how do you find what you are looking for? Luckily, because of the very nature of the Web, a number of innovative mechanisms, commonly referred to as "search engines," have been developed to solve the problems.

Of course, the Web being what it is, there are now quite a few search engines and not every engine has efficient access to all the information you might want or need. To ensure that your research has given you access to everything (or almost everything), you may want to interrogate several engines as your search progresses.

But, if the Net is so huge and amorphous, how do the engines work? Strictly speaking, they fall into two categories: directory-based and spider-based. There are probably other types, and many that combine features of both, but for the sake of explanation, let's limit the description to these.

Directory-based search engines consist of a huge tree of topics, starting with very broad-based categories such as arts, science, business, etc., with each topic leading to more detailed topics until a point is reached where the topic is narrow enough to start displaying actual information. Moving down the topic lists is performed by executing normal Web hyperlinks. Searching a directory-based engine is extremely simple.

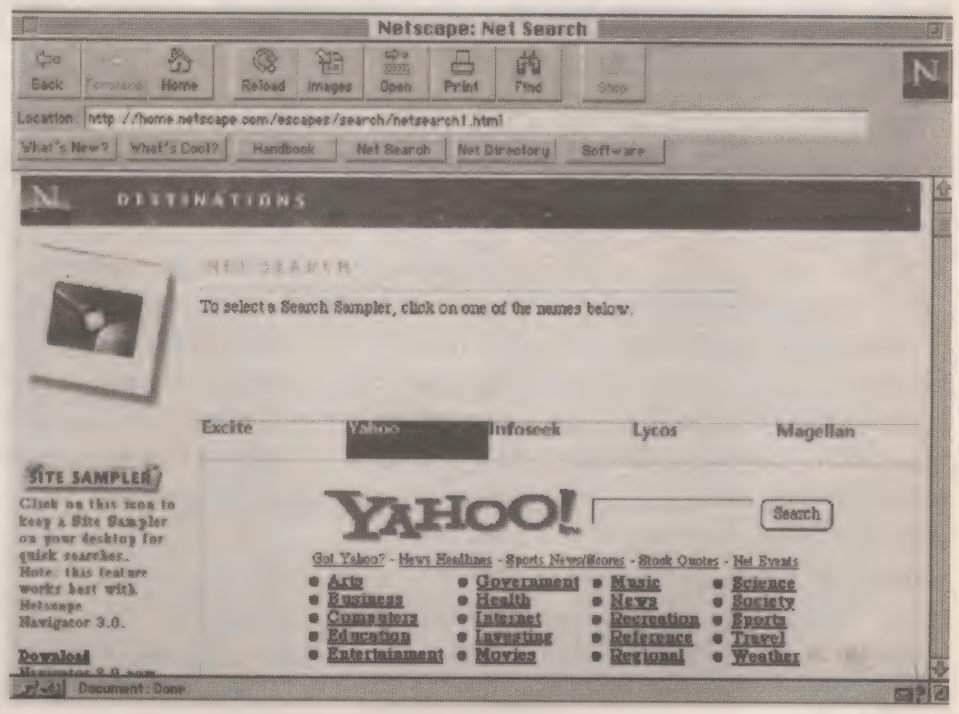
Examples of directory-based engines are:

- WWW Virtual Library
- Whole Internet Catalog
- InterNIC InfoGuide
- McKinley Internet Directory
- JumpStation

Spider-based engines are really quite clever. A spider (sometimes called a worm but, given that we are talking about a Web, spider sounds more appropriate somehow) is a software robot that crawls around the Web poking its nose (if spiders have noses) into everything it finds. Each time it discovers a new Web site, it requests the pages from the server and takes them back to the engine. The engine then extracts all the key words that it thinks might be of interest and stores them in its search mechanism along with the reference to the relevant Web pages. The next time you search for a key word, up will pop the new reference.

Examples of spider-based engines:

- InfoSeek
- Lycos
- Webcrawler
- Inktomi



One click from Netscape's Net Search allows you to choose from five different search engines.

Depending on the browser you are using, you probably won't have to go looking for the engines. Many of the most popular browsers have links to both directories and search engines directly from their "front panels." For example, Netscape has buttons marked "What's New," "What's Cool," "Net Search" and "Net Directory."

What's New and What's Cool are direct links to Web sites which have just appeared (note that, with the volume of additions to the Web, "just" may mean three or four weeks) and Web sites which the people at Netscape have judged to be "cool."

Other What's New sites abound, including NCSA's site and Yahoo!, which is one of the largest and best-known directories on the Web.

For out-and-out searching, it really doesn't matter where you start because, increasingly, the engines all reference each other. Netscape's Net Search button, for instance, leads to a page which prominently features InfoSeek, but also gives access to almost all of the other major engines. Similarly, the Net Directory button leads to a page which features Excite but includes access to many of the other major directories.

A set of option buttons beneath the search box allows you to limit the sources to be searched to "All Web Pages" (default), "NewsGroups," "UseNet FAQs," "Reviewed Pages" and "Topics." Topics can be picked from a set of directories below the search box.

While each engine differs in detail, it allows access to a link describing the specific rules which are used to make a search. None of the engines I have looked at require the user to have a degree in rocket science.

In the next issue of *Hawaii's Web & Internet News*, I will expand the topic of searching the Web to more advanced search techniques.

In the meantime, start using the engines to really start exploring the Web for the information you are looking for, and take the "maybe" out of "seek and ye shall find."

 John Mather is the President of Winformation Software, which markets Appeal, a Windows database utilizing Winformation's revolutionary Auto Relational technology. Appeal combines the power of Relationality with unprecedented ease of use. Visit Winformation's Web site **http://wwwiz.com/home/mather/**.

LavaNet

Hawaii's red hot Internet access provider

by Kristine Bucar

What does it take to be voted "Honolulu's Best Internet Access Provider" two years in a row?

"We want to have fun on the job, work hard, build a great place to work and a great place for our customers. We love the Internet — we want to bring others to it, and to contribute to improving it in our own way," reads LavaNet's corporate biography.

LavaNet erupted from a start-up business with one paid employee to a staff of 16 in two short years. LavaNet incorporated in July 1994, beta-tested in November and opened for service on December 5, 1994.

Now, they're one of Hawaii's largest commercial Internet access providers. They've grown from having 60 non-paying beta accounts in November 1994 to 3,500-plus dial-up accounts, about 50 Web-space-only accounts and a handful of dedicated-line customers.

Becoming an Internet service provider (ISP) probably would not have occurred to the average person. Two years ago few people had heard of the Internet, fewer still had experienced it. Clifton Royston, president of LavaNet, said, "Two-and-a-half years ago that seemed like the thing to do. There were only a few small companies offering Internet access in Hawaii . . ." Royston had been exposed to the Net at VeriFone, where he was employee number 25. He worked there for 11 years, and after forming LavaNet continued to work there until January 1996. At VeriFone he saw how the Net was growing and he had seen Netcom, a California-based ISP grow from a small provider to a major ISP.

He and his wife, Karen Lofstrom, director of administration for LavaNet, had discussed the idea of opening starting an ISP, but originally decided against it. "We decided that we don't need to have the headache of starting up a company just so we can use the Net," said Royston.

Lofstrom and Royston met in Chicago at her going-away-to-Hawaii party. Royston says they "fell for each other rather hard" and afterwards carried on a long-distance romance. Lofstrom was on her way to study the Tongan language in Hawaii. Royston was attending the University of Chicago. He had started taking classes there when he was 15 years old and graduated with a Bachelor of Arts in Mathematics. Lofstrom had acquired a Bachelors of Arts in Anthropology from the University of California at Berkeley and a Masters of Arts in Anthropology from the University of Chicago. He joined her here, in Hawaii, in 1982, they were married and then spent a year in Tonga. They now have one daughter, Ellery, who is in 5th grade.

But despite their original thoughts against starting an Internet business, they decided the time was ripe for an ISP. They were one of a few other companies that also had that same idea. Hawaii Online, FlexNet and PixiNet all started up right around that time. There's some debate as to who was the first commercial ISP (the UH had offered access to people affiliated with the school and a gateway to a Mainland provider, Portal, was available). Royston says FlexNet was the first ISP and beat everyone else online by at least a couple of months.

Royston and Lofstrom were put in touch with Robert Brewer, a systems administrator at the University of Hawaii at Manoa and now vice president for technical operations at LavaNet. He had experienced the joy of setting up terminal servers to allow dial-up IP (Internet protocol) at the UH, and, like Royston, he had the experience of working at a successful high-tech start-up.

Baron Fujimoto rounded out the impressive start-up team. He had recently graduated from the UH and was wondering if he would be able to find work in his field *and* stay in Hawaii. Fujimoto graduated with a Bachelor of Science degree in Electrical Engineering, specializing in computer engineering and data communications.

Royston, Lofstrom, Brewer and Fujimoto formed the core team for the start-up at LavaNet. Fujimoto was the paid employee, and the rest worked for stock options. That allowed the company to start on a low budget. Now LavaNet boasts 16 staff members. Also in on the start-up was Pat Donegan, one of the original investors who also managed the sales side of the business. Kit Grant, former creative director at Lion Coffee, lent graphic design talent to LavaNet and came to the company full-time in November 1995.

LavaNet recently added 46 modems bringing the total modem pool to 356 which excludes the ISDN dial-in pool. They plan to bring in another 210 all-digital modems by the end of 1996. LavaNet has a policy of not overselling their capacity. Royston said that the one thing they've done better than other ISPs is managing growth, which includes even limiting it at times.

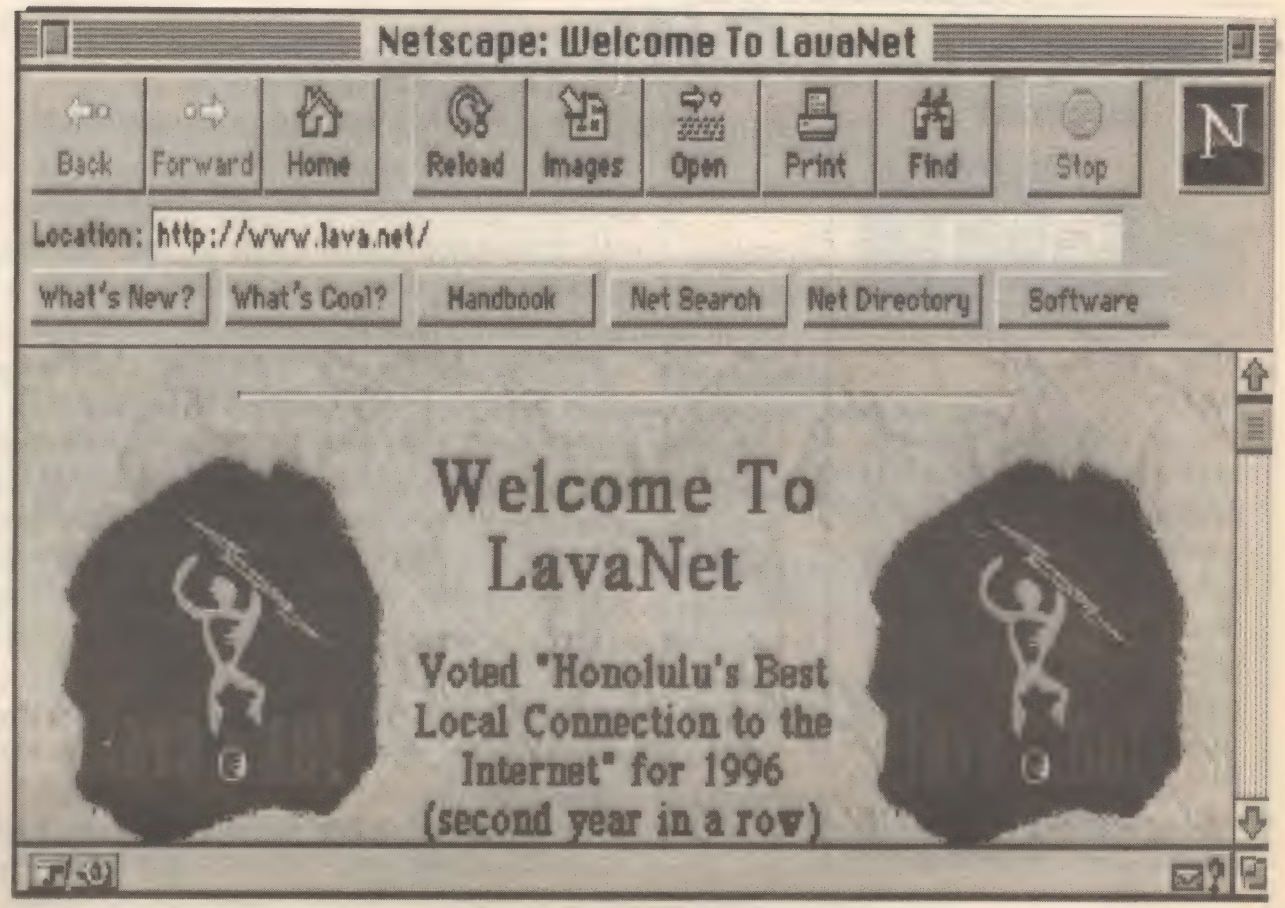
LavaNet president Clifton Royston surrounds himself in cables and modems in LavaNet's tech support room.

Customers are put on a wait list until the hardware has the capacity to service more users. This helps insure that LavaNet customers don't often get a busy signal when dialing in. Part of LavaNet's philosophy has been to offer a quality service; they don't offer Web design because it would take the focus away from connectivity. Dial-up customers receive custom installation software upon start-up.

Royston said, "It's very rewarding to build a company that fosters creativity, where people are happy to come to work." He said currently LavaNet is self-sustaining and they plan to continue to expand, perhaps to the Neighbor Islands. "In both a personal and financial sense it's going well." The "very round" figure for gross revenue in the first year was a quarter of a million dollars.

When asked about how the Internet figures into Hawaii's future, Royston replied, "It's going to be very big. We're heading for a future where everyone will have Internet access . . . that's going to change what types of businesses are economically possible here in Hawaii. It allows local products to reach a broader market."

Royston concluded, "It minimizes the significance of geographic distance and the competitive difference between smaller companies and larger companies. Both those are very important to Hawaii business." In other words, "It levels the playing field."



Check out LavaNet's Web site for up-to-date Internet access information.

Kristine Bucar is a Hawaii-based freelance writer and editor. She welcomes email at **kbucar@lava.net** *and invites you to visit her home on the Web, Makakilo Hale, at*
http://www.lava.net/~kbucar/

OffRamp to the Internet

The mainland U.S. is crisscrossed by highways that make it possible to get from one place to another fairly quickly. This trip can be pleasant or not. A lot depends on how well you know and understand the infrastructure of restaurants, hotels, rest stops and service stations that has sprung up around our nation's highways. Cruising the Information Superhighway (Internet) is a lot like that. You can get from here to there, collecting data and getting your work done, but it sure helps if you get off the road once in a while and learn to understand the underlying infrastructure that has sprung up to support the Internet.

This infrastructure is your computer and the millions of others like it around the world. This column, then, is the "offramp" from the Information SuperHighway. In this column, I'll be covering general interest computer information. Mostly it's directed at home offices and small businesses, but not all of it, because your columnist likes to have his fun, too.

Here, you'll find information about hardware and software, developments in technology and my opinion on where our exciting computer tool set is headed.

I've been doing this a while — my first article was published in 1981 and since that time, I've been published in eight different magazines. My day job is as a data administrator at Long's Drug Stores, Inc., a potent retailer here in Hawaii.

But enough introduction, on to my "OffRamp" column!

OffRamp

Remove-It and Post-It keeps you on track

by David Plotkin

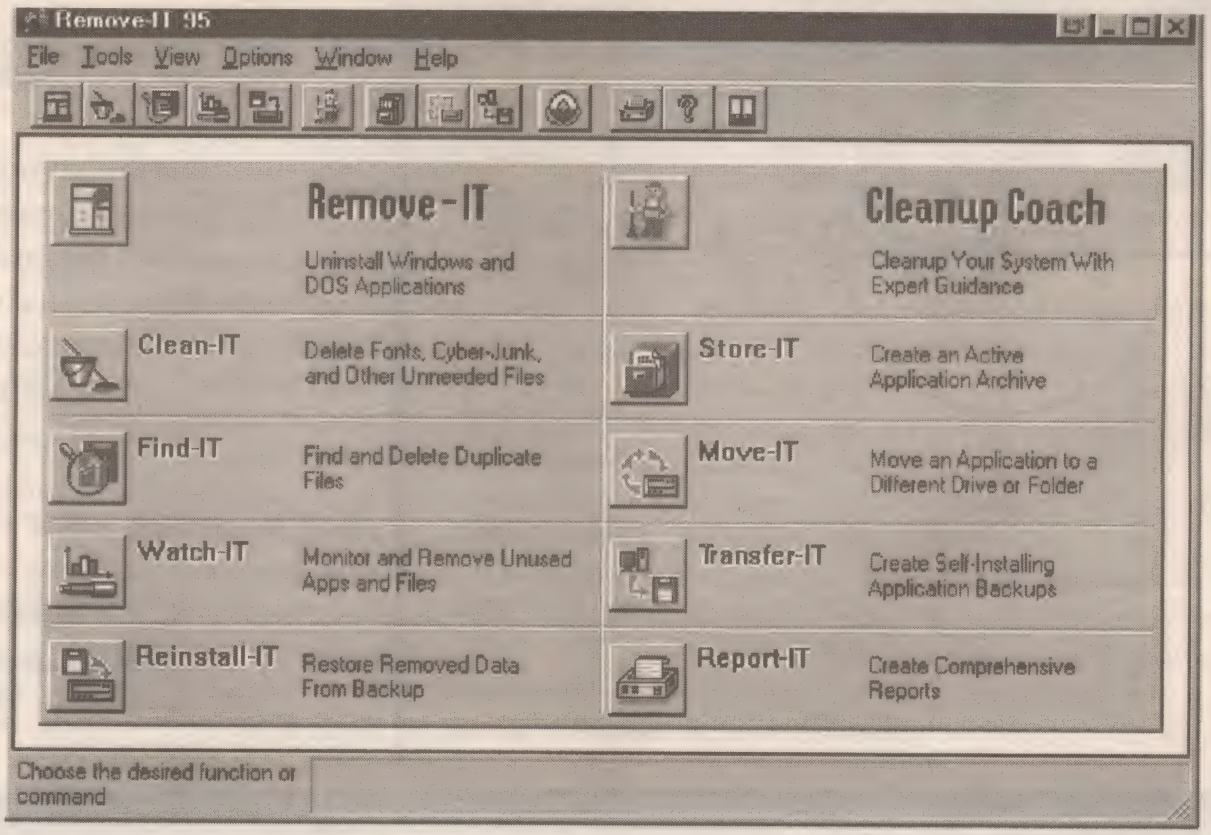
Those of us who have used Windows for a while know how hard it is to manually get rid of a program once you've installed it. The success of program removal applications, such as UnInstaller and Remove-It is a testament to that. Windows 95 only makes this job harder, since modifying the Registry is beyond the reach of most users. And don't kid yourself, "uninstall" doesn't fix the whole problem. First of all, many programs don't come with uninstall programs and many of those that do don't get rid of every last vestige of the program. Well, Vertisoft's Remove-It is available in a Windows 95 version that not only manages to do a great job of removing installed applications safely, but comes with some very neat utilities. No one who changes software even once in a while should be without this program.

Remove-It has a database of over 1,000 applications that it "knows" how to uninstall — and these can be removed regardless of when they were installed. But where Remove-It really shines is at removing software installed *after* Remove-It was placed on the machine (and is thus very useful on a new machine). A logging utility sits in the background until you try to install a new program. Then it wakes up and makes an exact record of all the changes that the install makes to your computer. These changes include new files and directories, .INI files, registry changes and so on. Once the install is done, you can name the log file created (I usually name it for the program I just installed). Later, you can select from these logs and install any of these programs. Completely. When you remove a program, Remove-It gives you the option of compressing and storing the removed files. That way, if you need to restore a file or two (accidents do happen, although I had no problems along this line), you still have it available.

On small caveat is that the logger "wakes up" when you run a program that it recognizes as an installer program. The list includes various flavors of "Setup" and "Install", but if a program names its setup file something else (once of my applications titled its install program "CDINST"), you must either add this program name to the automatically-recognized list (which is simple enough), or start the logging process manually (the logger utility is visible in the task bar tray). You *can* log the installation of many different programs into a single log file, but then you would only be able to uninstall *all* the programs included in the log file. Interestingly, you can append an install to the end of a previous install. This can be handy if you install a minor upgrade to a program (I've gotten three versions of WinFax Pro already). Running the appended log file later will uninstall the whole program, including the upgrade. Slick.

Remove-It also makes your life easier in other ways — again, provided you have logged the installation. For one thing, it can move a program to a different disk drive, redirecting all the references properly. It can even (and this borders on magic) relocate the program to an entirely different machine via a compressed backup. There is even a "smart disk agent" that keeps track of file usage, and tells you which files/applications you haven't used recently. These files might well be candidates for archiving.

Remove-It automates archiving the application and leaves a program stub on your hard drive. If you need to run the program again, you simply double-click on its icon (or however else you normally ran



Do you need to remove a program or axe unneeded files? Remove-It's one-stop menu system does it all with a click.

the program) and Remove-It dearchives the program and makes it available again. Very slick.

Another utility can locate files that are not attached or referenced (e.g., old drivers, remnants of incomplete uninstalls, etc.) and provide you with a list for removal. Finally, there is a "Remove-It Coach" wizard that questions you as to what you want to do, then runs the necessary Remove-It and so on and I can never remember what each one does. To be fair, there is a good explanation in the online help, but using the wizard is easier.

Posting Notes on Your Computer

If you look in my office, you'll see a lot of those ubiquitous little yellow Post-It notes. You know the ones — those little slips of paper with a glue strip that seem to be able to stick almost anything. They're great for leaving yourself notes, reminding yourself of to-do's, jotting a quick note to a colleague, and so on. The only problem seems to be running out of space to put them! Well, now, 3M has come to the rescue with "digital" Post-It Notes. In the Windows 95 version I looked at, you can create Post-It notes and leave them scattered on your desktop, or put them in "Memoboards". A Memoboard looks much like a real bulletin board (and also looks like folder on your desktop), and helps you to manage groups of notes. You can place notes in a memoboard when you create them, drag notes from one memoboard to another (or to and from the desktop), and open and close memoboards.

Creating a Post-It Note is simple. You can click on the Post-It note icon (which is installed on your desktop by default), or click on the tiny Post-It that appear in the "tray" at the right end of your taskbar. A new post-it note appears on your desktop in one of the four available pastel colors (just like the real thing). Or, you can pop out the utility menu from the Post-It icon and select the "new note" tool, selecting the color as you do so. However you go about it, a small post-it note appears on your desktop, ready for you to enter your text. You can type in your text using standard word processing techniques, including using cut and paste (both within and between notes). You can drag the note to a new location or resize the note using standard windows techniques. If you size the note so small that you can't see all the text, a set of three dots appears at the bottom of the note to warn you that there is more text. Clicking on the three dots automatically resizes the note just large enough to see the whole note.

Post-It notes are great for leaving yourself notes, reminding yourself of to-do's, and so on.

Each note has a tiny button in the upper left corner. Double-clicking on this button shrinks the note to a minuscule rectangle that hardly takes up any space at all. Single-clicking on this button drops down a menu where you can make various choices. You can change the font and color for the note, copy and paste text, set an alarm, send the note via any email supported by Win95 (the receiver does not have to have Post-It Notes to receive the note), print the note and throw the note away. Trashing the note does not actually delete it, instead, it ends up in the "trashcan," which appears to be nothing more than a special Memoboard. You can, of course, empty the trash, truly deleting the notes. The alarm function is surprisingly sophisticated. You can set the alarm time and date, and set the alarm to repeat on a regular basis (daily, weekly, monthly and yearly). You can even specify that the alarm should repeat every "n" days, weeks, months, or years, where "n" is any integer. This works pretty well as a simply appointment calendar. From the alarm page you can even jump right to the note (although you can see the note in the alarm page anyway).

You can set up Post-It Notes to always be on top, and even export a whole Memoboard full of notes as either a Memoboard (for other users of Post-It Notes) or as a text file. And, since the product is OLE2 compliant, you can embed a note in another application, where you can edit the note simply by clicking on it. However, although you can move the note around in the embedded document, you don't seem to be able to remove it once you have embedded it. Clicking and dragging the note back to the desktop just creates a "Scrap."

Post-It Notes is a handy little utility. It is not too complex, and it only does one thing. But it does its job well, and for $19.95, it's a good value.

Where to buy
Remove-It $19.95 (upgrade) or $59.95
Vertisoft Systems, Inc.
153-B Grace Drive
Easley,SC 29640
(808) 380-3711

Post-It Software Notes, $19.95
3M Company
(800) 330-3966
www.mmm.com/psnotes

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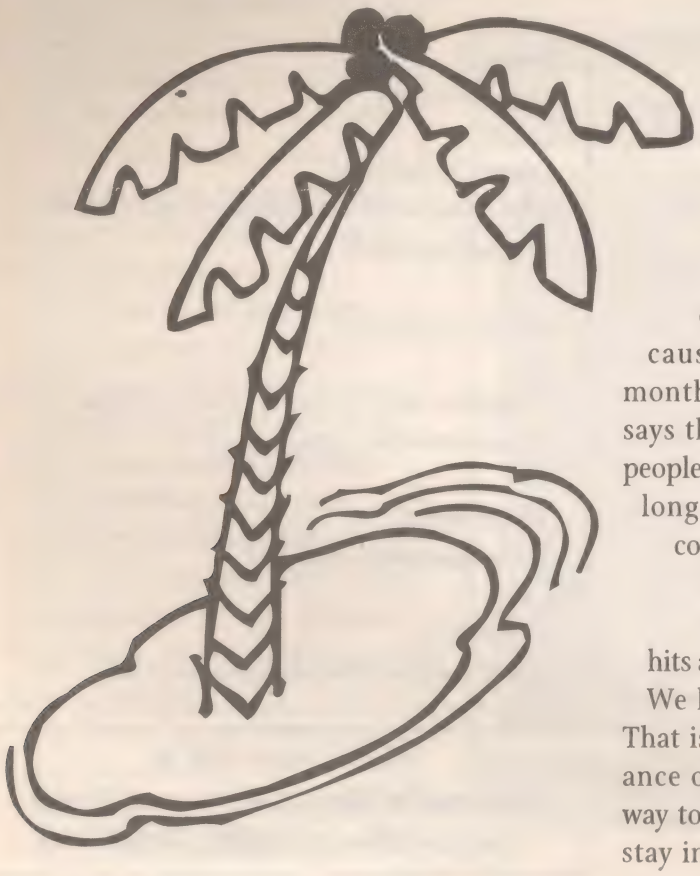
LetterFrom Home

Focus and the lack of it

by SahoniRedbird English

So much has been going on around here, I hardly know where to start. Actually one word keeps coming to mind: focus. For two days now, I have been thinking of you and trying to focus on this letter. My mind keeps running off here and there in different directions, with incredible lack of focus. Lack of focus seems to be going around. Everybody is running around being busy, but what are they doing? Seems like they are more on the way to doing something, or on the way back and hurrying so they can do something else. One thing we have to remember is that nobody can do it all. And no one is indispensable. There is a season for everything, including gathering your own focus. Even the great Webmeisters take time off once in while to just rest and regroup, to refresh and refocus.

It is interesting that the word *focus* comes from the Latin meaning "hearth." If you picture yourself sitting, gazing into a hearth, like in a cabin in Montana with the snow falling outside, heavy on the Aspen trees, with a wonderful fire going in that hearth, you can get pretty focused just staring into the fire. One dictionary defines focus as "cause to be concentrated." That's good for our purposes here.



Do you think you can lose your ability to concentrate by spending too much time at the computer?

Doesn't the mind seem to just shut down after about 12 to 14 hours straight? It can be exhilarating. The mind seems to love following those threads wherever they lead and *that* can go on endlessly. A. Milne wrote *Winnie the Pooh* and he said, "One of the advantages of being disorderly is that one is constantly making exciting discoveries." It can be like surfing the Net and it can also definitely be time consuming.

People I have talked to here on Molokai have been telling me they are afraid they will become addicted to the computer, spending entirely too much time there. Doesn't seem like a very serious problem in the scope of things, but actually it can be serious if it keeps you from having a real life.

The Internet is real time and being online eats up real time, which is actually your real life. Ben Franklin said time is the stuff life is made of. We won't get into the Einstein thing or we could easily lose our focus! It is like anything else that could take up too much of your precious time. It takes self-discipline. Yep, that again. All this must be relatively a common concern because I noticed in this month's *Wired* an ad which says they are worried about people sitting home alone for long hours with just their computers. And the stats tell us Netscape is getting at least 80 million hits a day, gang.

We have to be in control. That is the key. Walk in balance on Mother Earth. The way to discipline ourselves to stay in focus; to have goals. It's that simple. With computer work it is strictly up to us. We can easily vegetate at the computer and be hypnotized mindlessly, just like with TV, not really using our minds at all. You can get the same effect from sitting and watching clothes wash in a big triple-load machine.

We have to establish our own goals and keep the focus ourselves. It's not hard, just takes some thinking. That can be a good thing. Remember someone has said, "If a man know not what harbor he seeks, no light will be enough to guide him." Up to you. Now, I have just focused on this and haven't told you the other stuff I wanted to.

A hui hou until next time.

Laptops

Visioneer's revolutionary keyboard scanner

A combination keyboard and scanner all in one

by Ed Kahn

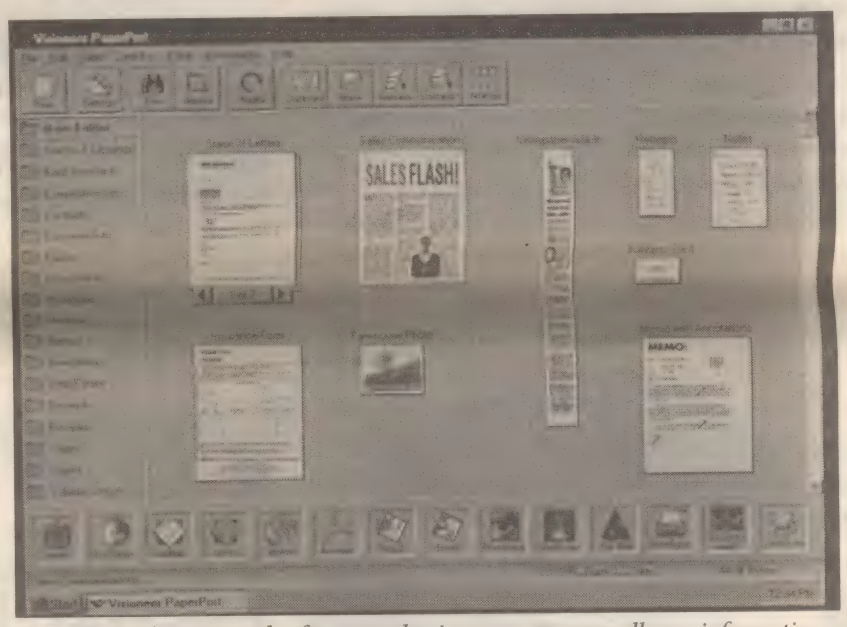
From time to time I review full size keyboards that users of portables might like to consider for their primary computer location. Generally, no matter how good a portable keyboard is, I prefer to work on a standard keyboard. My minimum requirements these days are that the keyboard have a numeric keypad as well as cursor movement keys and separate keys for PgUp, PgDn, Home and End. Furthermore, I now will not work on a keyboard that does not have the extra three Microsoft 95 shortcut keys. Visioneer, who brought us the great PaperPort scanners, is an unlikely place to expect to find a great keyboard, but nevertheless they have done it.

I must hasten to add that this is no ordinary keyboard. Rather than sell for somewhere between $25 and $100, this beauty sells for somewhere in the neighborhood of $350. But don't run away until you read on. As I said, this is no ordinary keyboard. The major part of the cost is the built in scanner. I have talked about the PaperPort scanner in the past, but this new keyboard/scanner has all the features of their most recent scanner with the keyboard almost thrown in. The result is a sleek looking unit not much larger than a good keyboard with a scanner planted at the top of the keyboard. It is hard to imagine, but the end result doesn't look that much different than a good keyboard. While I love this unit, I must add that if you are a person who likes to work with the keyboard on your lap, this is probably not the model for you.

I have been taken by the PaperPort since the earliest release of the product. At this point, I couldn't imagine working without the scanner on my desk. It has changed the way I use my computer. This newest release, the PaperPort ix, is the best yet. The key to the value of the scanner is that it allows you to scan in almost anything from a piece of paper with a drawing to a newspaper article. Once you have run the paper through the scanner, the efficiencies begin.

You do not have to turn on any hardware or call up any program. When you put the paper into the scanner, it opens the software and the document appears on your computer screen. You then have a number of options. The first thing you can do is edit the material, if you like. Software allows you to enhance the image, rotate it, stack multiple pages together, change the resolution and then drag the image, whether text or graphics, into any of the folders you have created within the PaperPort desktop.

Once you have the document scanned and inside the PaperPort desktop, the power of the product begins to shine. With this newest release of the product, new software makes the scanner even more valuable. At the heart of the product are links to other software. By dragging the thumbnail sketch of the image onto one of the links, you copy the document into that application. For instance, you can drag the image onto the printer icon and the document will be printed for you. Drag it to the copier icon and your system will function like a copier that will enlarge and reduce. You can change the contrast and print multiple copies, collated or not. The possibilities are endless. Drag the icon onto the fax icon (if you have fax software) and the document will be transferred into your fax software and the fax screen will pop up. Drag the item into your word processor link icon and the text will be converted into a document you can edit with your word processor. This is major power we are talking about.



PaperPort ix's integrated software makes it easy to manage all your information.

The newest release of the software contains a number of new links and tools. A form filler lets you scan in a form and then drag it to the form filler link. Then you can tab from field to field and fill in the form. You can save the filled out form, fax it, print it.

The newest links involve the Internet. A link to Netscape lets you send scanned documents over the Internet through email. On the other end, the recipient must have software like Netscape that is capable of browsing the Web.

A new link, announced but not yet bundled with the software, will cut down fax costs by using the Internet rather than phone lines to fax documents. The way this one works is that you fax the document using the software to a provider who has phone links in each of the areas where you might want your fax delivered and the document is delivered immediately to the recipient's fax machine, saving you the cost of the long distance call. Pretty nifty.

As much as I like this product, I am beginning to see that this is only the beginning. Visioneer says they now have over 130 links to software. More and more links are being created. I feel that this is the most significant new product to come to small office/home office users in years. Five years or more ago, Xerox announced a product that did what this product does, but on a much larger scale and it sold for hundreds of thousands of dollars. This is the first product that leads us towards the paperless office. Increasingly, we can do away with paper originals and file documents electronically until we need them.

While this product is not marketed primarily towards uses of portables, because of its versatility, I highly recommend it to anyone who has a primary work site. The keyboard is a delight and having the keyboard and scanner all in one unit cuts down on desktop clutter.

PaperPort ix $349.00
Visioneer
2860 West Bayshore Road
Palo Alto, CA 94303
(800) 787-7007

Happenings

October telecommunications, computer & Internet events

1/Tues/6:00 pm

Cyberpizza.

An informal networking forum for entrepreneurs, computer programmers, network administrators, Internet users, etc. Different guest speakers every month. $6 per person for pizza and drinks. Manoa Innovation Center 2800 Woodlawn Drive, Training Room #170 of the Digital Media Laboratory. Contact: Eran Agmon at 831-0600, Courtney Brown at 595-1000 or Nathan Yuen **http://www.aloha.net/~epizza/cpizza.html.**

8/Tues/6:00 pm

Electronic Pizza.

Founded in 1984 to provide a forum for engineers, computer programmers, network administrators, entrepreneurs, etc. to learn about the latest electronic technologies. Meets at Manoa Innovation Center. 2800 Woodlawn Drive, Second Floor Conference Room. $6.00 for pizza and drinks. Contact: Eran Agmon at 831-0600, Courtney Brown at 595-1000.

9/Wed/11:30 am - 1:30 pm

Annual meeting of Oahu Economic Development Board (formerly known as the Economic Development Corporation of Hawaii).

Pacific Tower, HEI Training Room. Speaker: Doug Henton, president of Collaborative Economics Architect of Acclaimed Models: Bay Area & Silicon Valley.

11/Fri/7:00 pm

Real-World Multimedia on the Internet.

Come learn about the latest tools and technologies and get a glimpse of what new kinds of content will be possible in the not-so-distant future. Yukiyoshi Room, Krause Hall, UH Manoa Campus. Free. Phone 956-7221.

12-13/Sat & Sun/10:00 am - 4:00 pm

Pacific Institute for New Media (Pacific New Media).

Multimedia Demystified: An Introduction to Digital Media and Interactively. Manoa Innovation Center. Contact: Susan Horowitz at 956-3422 or email **shorowitz@mail.summer.hawaii.edu.**

19/Sat/10:00 am - 11:30 am

Webgrrls.

A networking group for women interested in technology and the Internet. Meets at Honolulu Community College, Building 2, Room 516. Contact: **hawaii@webgrrls.com.**

23/Wed/8:00 am - 6:00 pm

Hawaii Telecommunications Association presents Telecom '96. Telecom '96 will explore how all Hawaii businesses can integrate Internet technology into their daily business practices to gain competitive advantages in the global marketplace. For sponsorship or registration information call HTCA 528-4822.

24-25/Sat & Sun/10:00 am - 5:00 pm

An Introduction to Web Design.

Introductory class for the complete beginner. Topics to include: a general and brief background on what the Web is, and how it came to be; what is a Web page and Web site; HTML basics, etc. Manoa Innovation Center, Training Room. Contact: Susan Horowitz at 956-3422 or email **shorowitz@mail.hawaii.edu.**

26/Saturday/11:00 am - 4:00 pm

Joint Fall Conference by the Hawaii Association of School Librarians and Educators for Technology and Computing in Hawaii.

Kapiolani Community College. $25 for members/$35 non-members. Contact: Myles Furubayashi at 262-9020.

30-31/Wed & Thurs/11:00 am - 8:00 pm

Computer Expo Business Resource Show.

Hawaii's premiere computer show. Over 8,000 attendees in '95. Neal Blaisdell Exhibition Hall. For sponsorship or information call 1-800-521-3163 or email to **expo@aloha.net.**

Be warned, all events subject to change without notice, call in advance. Send notice of your computing and Internet events to **Hawaii's Web & Internet News.** *Email:* **kbucar@lava.net;** *snail mail:* **Hawaii's Web & Internet News,** *PO Box 2782, Ewa Beach, Hawaii, 96706-0782; fax: (808) 672-5511.*

The Internet Insider

Web sites at a glance

Easily find medical knowledge

The Health A to Z site is designed to offer quick access to medical information on the Web. In addition to a search engine of the site, you can check the topic of the month which offers in-depth coverage about an important health topic or disease.

http://www.healthatoz.com

The Unofficial Internet Book List

The Unofficial Internet Book List has been revised and now includes details of more than 530 Internet-related books. The idea of the list is to help you find out which Internet book you need before journeying to the book store. You can browse the Book List by topic or you can search it by keyword.

http://www.northcoast.com/savetz/booklist

Navigating the Internet

If you are having problems navigating the Internet and are confused by its size, maybe this new service will help. Eye on the Web "allows new and current Internet users to easily master the Web without wading through an endless tide of useless sites," according to the Webmaster.

http://www.eyeontheweb.com

Ovi's World of the Bizarre

You won't believe some of the stories on this Web site. Don't forget to check the top 20 most bizarre stories and you can also sign up for an email edition of the newsletter which will deliver some of the weirdest real-life stories to your e-mail box.

http://netmar.com/users/ovigher/ovi.htm

World airport information

Before you travel, check out this index. It is a searchable database of airports. You can enter the three letter code and find out where the airport is, something you probably already know, or enter the town and country and find out the airport code. Any airports with Web pages are returned with hyperlinks to those pages in the results.

http://www.uni-karlsruhe.de/~un9v/atm/ase.html

Telephony magazine

This Web site is the Internet home of Telephony magazine. Visitors will find the latest news from the industry, the magazine's cover story, news products in the telephony business, industry events, links to useful Web sites and more.

http://www.internettelephony.com

Problems with your PC?

If you need help with Windows, major software packages, the Internet, or just about anything else related to PCs, check out this page. The computer science majors at California State University, Long Beach, will answer your questions for free, across the Internet. They say, "We offer this assistance free of charge. Basically because it would look good on a resume, and because we like helping others."

http://www.geocities.com/SiliconValley/Park/3641

New Web airline reservations and ticketing system

Claiming online and Internet users are tired and frustrated with slow airline reservations and ticketing systems, Preview Travel opened Reservations.com. The new system is designed to offer desktop computer users the same information used by travel agents.

"Reservations.com is powerful, fast and easy to use," said Ken Orton, president of Preview Travel. "It is built around an attractive interface and it is a system made for today's Internet user."

Following current Internet trends, Reservations.com allows users to create a profile with seating and eating preferences, favorite airlines, normal departing airport, class of service and frequent flyer information.

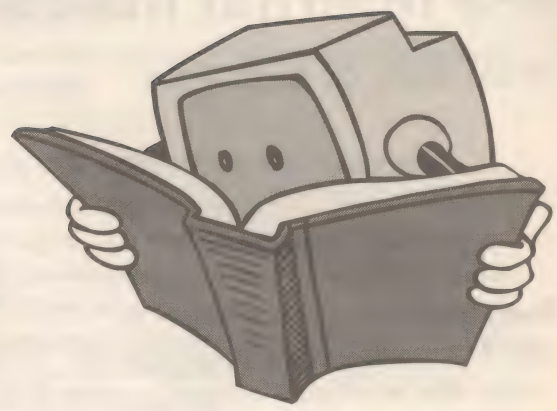
Preview uses the Apollo reservations system with access to more than 700 airlines worldwide. Airline tickets purchased through this free Internet system are delivered via second-day air at no additional charge.

A simple registration and password process are required for first-time user and registration involves no obligation or cost. The new service is located at http://www.reservations.com.

Quick Tips and Fixes

Shareware finds, background changes and backspaces

by Joe DeRouen



If you're having problems with your computer, you've turned to the right page. While we can't print every letter, we do read them and will reply personally when the situation warrants it. Keep those cards and letters coming, folks!

Get your cheap programs here!

Dear Joe,

I'm new to the online world but I've heard a lot about shareware as an alternative to expensive commercial programs and I'm willing to give it a try. Could you tell me what exactly shareware is and where I'd find it? I call both BBSes and the Internet.
Sincerely,
Jim Smith
via Internet

Dear Jim,

Shareware has been around for many years and though it wasn't always the case, these days the quality of the programs often equal or exceed its commercial counterparts. The concept of shareware is simple; you get to try before you buy. You're given the right to download shareware programs from BBSes and the Internet and, if you like the programs and find them useful, you're expected to register (purchase) it. It's kind of like buying one of those Time-Life books, really. If you don't like it, you send it back. If you do like it, you keep it and pay for it.

Some shareware has built-in limits on how long you can use it before it "expires" but most programs aren't limited or "crippled" in any way except that you might be given access to updates and newer versions of the program after you register it. In the case of games like Doom and Castle Wolfenstein, you're often given the first level free, but then must pay to receive the more advanced levels of the game.

One of your best bets for finding shareware is from BBSes. Most BBSes carry shareware. Let your fingers do the walking and pick a BBS that sounds interesting to you. Then dial it up and check it out. Some BBSes require that you keep a good upload/download ratio (that you upload programs to the system as well as download them). Be sure to contribute shareware you've downloaded from other systems to the BBSes that don't already have the programs.

If the Internet and World Wide Web are more your style, there are several sources for shareware there as well. A few of my favorites:

ClNet Shareware	http://www.shareware.com
Happy Puppy	http://www.happypuppy.com
Jumbo! Shareware	http://www.jumbo.com

These sites should get you headed in the right direction. There are literally hundreds of thousands of pieces of shareware out there, you just have to track it down and sort through it all. Good luck, and happy hunting!

Gray background gives the blues

Dear Joe,

I use Internet In a Box v2.0 to access the Internet through a local provider. I'm sick of the gray backgrounds! Is there any way that I can change it to plain white? There doesn't seem to be a way to change it from the program itself and I can't find any mention of it in the manual.
Thank you,
Sean Lively
via Internet

Dear Sean,

I've also used Internet In a Box, Sean, and unfortunately, there is no way to do this from inside Internet In a Box v2.0 or earlier versions. You can, however, change the gray background to white by tweaking one of the INI files that IBOX installs in your Windows root directory. Using a text editor, edit the file C:\WINDOWS\AIRMOS.INI and go down to the line that says:

GREY BACKGROUND=YES

Change that YES to a NO. Voila, you'll now have a white background instead of a gray one. White isn't much better, but at least it'll give you a little variety.

Backspace headaches

Dear Joe,

I have an Internet account and I get both PPP and shell service from them. My problem is that when I telnet to MUDs and BBSes or move files around using my shell, I can't backspace. Whenever I try, I get funny characters on the screen and the cursor doesn't erase the line I'm trying to erase. Please help me! This is really annoying.
Sincerely,
Deanna Young
via Internet

Dear Deanna,

You probably haven't noticed, but your backspace really is deleting the offending text. You just can't tell, because it's throwing characters (probably a "^H") onto your screen. The goal is to get rid of the offending "^H" so that your screen isn't cluttered and you can actually read what you're doing. In your shell account, type the following:

pico .login

Pico is a Unix text editor and a nice one at that. Makes sure you type it in like I've written, though, because, unlike DOS and Windows, Unix does differentiate between lower and upper case. Once Pico has loaded the .login file (the file that controls what happens each time you log into your account) move down to the end of the file by using "control-V" to page through it. Once you're there, type the following on a blank line:

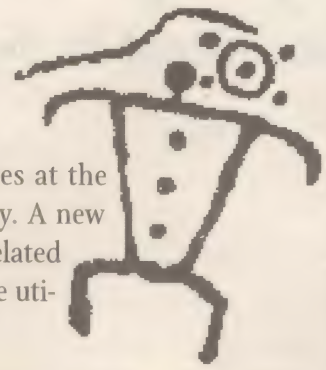
stty erase ^H

Then enter CONTROL-V to save the file, Y to confirm it, press <return> to confirm the file name and you're done. You'll have to log out and then log back in for the changes to take effect, but after that you'll never see those nasty ^H's again.

Are you having a problem with your computer? Write to Joe at **Hawaii's Web & Internet News** *via Sunlight Through The Shadows BBS at (214) 620-8793, on the Internet at* **jderouen@crl.com**, *on AOL via* **jderouen**, *or through* CompuServe at **73654,1732**. *Be sure to stop by and check out Joe's World Wide Web Home page at* **http://www.crl.com/~jderouen/** *while you're traversing the Web!*

What's New in Hawaii's Webspace

Hawaii's latest Web sites



Hawaii directory upgrades

Bob Cunningham revised the categories at the Hawaii's Catalog of Web Pages directory. A new feature notes which island a listing is related to, whenever possible. The search engine utilizes a database of nearly 7,500 listings. The directory can still be found at **http://www.connect.hawaii.com/connect/**.

Web site caters to Palau visitors

The Palau Visitors Authority developed a Web site with information about the Republic of Palau. Visitors-to-be may find useful the listing of hotels, restaurants, dive and tour operators and attractions. The site's art is done in the style of Palauan storyboards, a traditional art form using bright, primitive paintings. Palau is a part of Micronesia and has long been a choice destination for divers. The site is at **http://www.visit-palau.com/**.

Media photographers establish Web presence

Hawaii Internet Emporium announced the addition of a new storefront to their cybermall, the American Society of Media Photographers, Hawaii Chapter. ASMP was founded in 1944 and has more than 5,000 members in 37 chapters. The Hawaii Chapter *Web* site list members and their photography focus. The site can be found at **http://www.asmphawaii.com/**.

Heathful site

Good Life Nutrition, a Hawaii-based company selling vitamins and health products, announced the addition of its Web site to Hawaii's burgeoning cyberspace. It's located at **http://goodlifenutrition.com**.

Virtual cyberart museum launched

Local Kine Internet Services, Digital Creations and Dr. Rodney Chang launched Virtutopia, a virtual city on the Internet. Virtutopia includes the Webfelt Museum of Early Cyberart. The cyberart museum has several galleries of cyberart and defines the parameters of the medium. The gallery also links to artists' cyberart pages. Virtutopia also contains the Cyberculture Research Library which was established for world scholars studying Internet human interaction to digitally publish their results. Check for Virtutopia at **http://www.virtutopia.com/** or the Webfelt Museum at **http://www.webfelt.com/**.

Homes on the Web

Castle & Cooke Homes Hawaii produced an interactive home page for home buyers. Web surfers can pan and zoom on 360 degree images of the homes, look at site and floor plans, begin the loan pre-qualifying process with Bank of Hawaii and review amenities for the home. The Castle & Cooke Homes Hawaii Web site currently features the Lalea at Hawaii Kai, a new residential condominium development. The planned communities at Mililani and Royal Kunia will be added in the future. The site is at **http://www.castle-cooke.com/**.

Digital Media Symposium

Honolulu seminar showcases latest in digital technology

by Kristine Bucar

Anyone who's ever had a dream, whether it be about owning their own business, writing magazine articles or producing feature films, would understand the electricity of the Digital Media Symposium (DMS) held in Honolulu earlier this summer.

The two-day Honolulu symposium was one of many that Razza Digital has put on around the country in the last two years. Razza Digital, Inc., founded in 1988, provides full service media production and market development services to the high technology industry. The company produces interactive and video projects and specializes in utilizing evolving technologies such as digital video.

Registrants at the Honolulu symposium attended a demonstration of the cutting edge tools used by digital-video creators. This creative elite demonstrated the hardware and software tools that they use to create and edit bumpers, trailers and ads for television.

You might have noticed this principle in effect on the Web. Just because it's of broadcast quality, doesn't necessarily mean it should be broadcast.

Very simply put, digital video is video tape transferred into a digital form. Desktop computers have enough RAM and hard-disk power to edit "video." These high-tech producers can input visuals from almost any form: film, Beta and stills. The editing can be saved to the hard disk, they often use a Iomega's Jaz drive to save and distribute the results, or transfer the productions back to video tape.

The presenters included Taz Goldstein, who produces graphics for TV commercials and is now expanding into full-length TV show production; Steve Recker, manager of interactive production at Razza; Chris and Trish Meyer, a husband and wife team who work out of their home and specialize in post production such as titles and credits; Bill Cartwright, a documentary film maker who worked on Oscar winning film "Maya Lin: A Strong Clear Vision" and other Oscar nominees; Jeff Sherwood, founder of Interverse, the Web development company that created The Spot, a Web site which won the Yahoo! Site of the Year award.

The seminar presenters went into specific detail about which tools they used to create which effect. By the way, the Mac is the platform for this industry. Macs are used in custom configuration systems and the editing and other software is developed for a Mac audience. In fact, these industry experts made "non-linear" editing look easy. Programs like Adobe Premiere and Macromedia Director provide several tracks for laying down cuts, transitions and sound. In and out points are set (or dropped) from a graphical, intuitive interface. Meyer and Goldstein demonstrated how they used Adobe After Effects, Adobe Illustrator and Adobe Premier in a seminar titled "Special Effects in Editing."

Goldstein, for example, ran a demo clip of his work which included spots for Toyota and a Stephen Speilberg charity. The charity commercial included a back-lit logo. Goldstein gave the logo (which is made of toy blocks and Tinker Toys) a texture that made it look like it was colored with crayons. The backlit effect was achieved by choosing the type of lighting effect and selecting parameters such as intensity, color and size.

Cartwright, in a seminar titled "Online Editing from the Desktop" demonstrated an add-on product called Ultimatte. He used it to cut out the background video of a women blowing smoke in a man's face. He replaced the background with some recently shot footage of Waikiki Beach with Diamond Head in the background. Again, the effects were all controlled by pointing and clicking.

Stephen Recker used a presentation he created for *DV Magazine* to illustrate how to overcome technical barriers. He created a series of custom palettes to keep the quality of presentation high, while avoiding hogging memory. A few key colors and a superimposed video of the "guide guy" lent continuity to the production.

This all makes digital video production look easy, David Barrett, DMS CEO, emphasized that "Content, is indeed, king" and that there's a big difference between something being broadcast quality and being broadcastable. You might have noticed this principle in effect on the Web or with public access television. Just because it's of broadcast quality, doesn't necessarily mean it should be broadcast.

Another theme of the symposium, was the concept of cross-media production. Media consultants working with corporate clients not only can, but should work with existing campaigns. "Asset acquisition" is the first step in production in any of the discussed media. A marketing campaign should send a consistent message. Part of the way to do that is to use materials from the same shoot, those that have the same tone and mood. If a consumer sees similar graphics in print, on the Web and in TV ads, then the consumer is all the more likely to remember the message. Producers are likely to run into some technical challenges as they cross over.

Just as Macs are the platform of choice for digital media professionals, AOL is the online service of choice.

The attendees, which numbered about 100, had their choice of two tracks of seminars and a hands-on class. Along with the seminars was an exhibitor's hall of about 25 vendors. They included Apple Computers, Panasonic, Media 100 and Kodak.

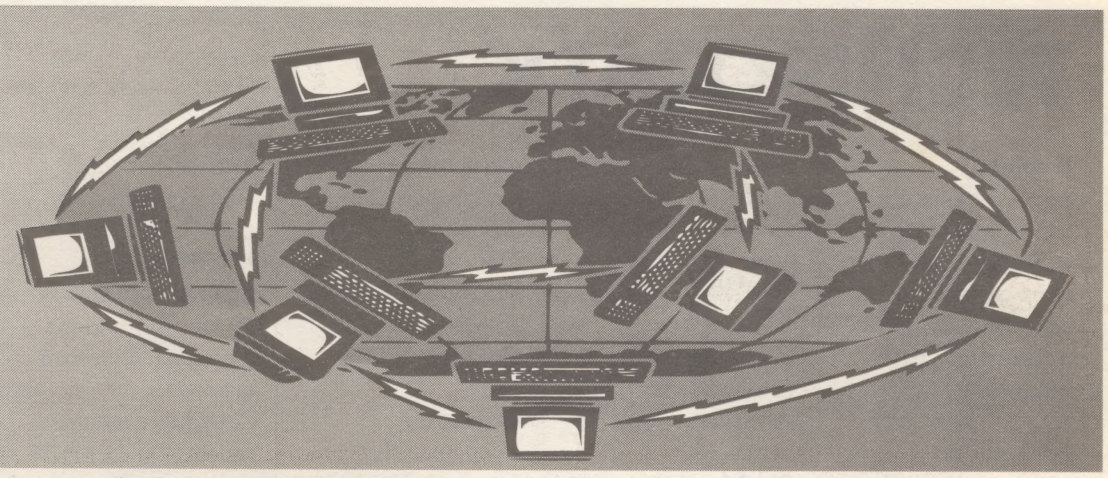
Kristine Bucar is a Hawaii-based freelance writer and editor. She welcomes email at **kbucar@lava.net** *and invites you to visit her home on the Web, Makakilo Hale, at*
http://www.lava.net/~kbucar/

Check out this site:

Razza's Web site – http://www.razza.com/

Convergence

by William Reuben Barker



The follow-up story concerning the Telecommunications Act of 1996 I promised in the first issue of *Hawaii's Web & Internet News* will be presented under its own byline, as I feel that an issue as important as the future of telecommunications in Hawaii deserves an ongoing in-depth news-type story rather than my usual ranting concerning the state of the industry in general. So look for that as a separate story in this and following issues.

In this Convergence column, I want to concentrate on the notion of an intranet, something that I feel will be (or has the potential to be) as big as the development of telecommunications and the Internet itself. Intranets are closely related to the critical issue of Web page or site content.

This past summer I had the pleasure of working closely with the Hawaii Education Research Network (HERN). Every summer, Hawaii's teachers migrate to the Kapiolani Community College campus to study the latest in computer and classroom skills. Invariably, I hear the same questions being asked over and over:

- What do I do with a Web Page?
- How can I help my students with what I have learned here?
- What can or cannot be done on the Internet?

A few educators have simply copied textbooks to HTML and left it at that. Others have broken new ground in classroom technique and established innovative sites packed with learning tools. Still others have done nothing because of the lack of a consistent method in which to get started.

These are valid questions, and there seems to be no easy answers or standard models as to how Web site content may be established. In the humble beginnings of the Internet, or more specifically World Wide Web, site content was not as critical as it is now that the Web has "matured" somewhat. This is due to the predictable infatuation of people doing something new, and everyone was willing to look over the lack of any real substance in most Web sites.

There were (and still are) exceptions. The political, academic and educational sites started out with applicable, valid missions in which they brought to bear the full communicative force of the Internet in making themselves heard. These sites have been extremely effective in mass distribution and dissemination of information pertaining to their respective causes and concerns.

Then comes the intranet.

The term intranet is relatively new and like most new technical jargon is fuzzy in its exact meaning. I will define the term here in my column to mean a "mini-network" usually located in organizations of varying size, and usually (but not always) containing information very specific to the organization the intranet is located in. The ideal intranet would use TCP/IP because an intranet could easily evolve into a public Web site.

Intranets provide the structure needed to establish content to Web sites among other great things. An intranet could be initiated with the organization's basic business plan as a minimum. A multimedia powered business plan forces that company or organization to put into words and pictures what their company is actually about. If the organization is a non-profit entity, the organization's mission statement would replace the business plan.

An electronic business plan helps define your organization and give it a homogenous image that may be related to by persons both inside and outside of the organization. One of the biggest hurdles of any business (especially in the critical start-up) is to make the mistake of not really knowing what kind of business you are actually trying to get into.

Once the business plan is established, an organizational chart can be added to identify the persons responsible for carrying out the directives of the plan.

The point I'm attempting to make here is that an intranet is an ideal way to improve the Internet. It does this by establishing an electronic representation of the company, school, class, group, etc. The private parts of this organization (the intranet) provide the communication and management tools necessary to effectively run the organization. The external parts (the Internet) that emerge will become that organization's Web site presence.

TECHNOTALK

Applets
Small, specialized applications that allow developers to add interactive content to Web documents such as simple animation, page adornments, etc.

Backbone
A high-speed set of network connections.

Bandwidth
The amount of information that can flow through a given point at any given time.

Baud
Modem speed equal to one signal per second.

BBS
Bulletin Board System.

Binary file
A file that contains non-textual information.

BIOS
Basic Input/Output System. A specification for a 16 bit program that boots 32 and 64 bit PC's.

Boot
To load and initialize the operating system of a computer.

Browser
A client program that enables a search capability by a specific server used generally in relation to the World Wide Web.

Bus
A system for connecting one or more CPUs to various peripherals and I/O devices, involving parallel data transfer through standardized connectors to multiple devices.

CD-ROM
Compact Disk — Read-Only Memory. A data storage medium.

Client
A software program that is used to contact and obtain data from a server software program on another computer.

.COM
Command (file name extension).

Cookie
A mechanism by which server side operations can store and retrieve information on the client side of the connection.

DMA
Direct Memory Access/Addressing.

DOS
Disk Operating System. An operating system for IBM-compatible computers.

Download
To transfer a file from one computer to another over a telephone line.

Driver
A piece of software that tells the computer how it relates to a specific piece of equipment.

ECP
Enhanced/Extended Capabilities Port (Microsoft).

Email
Electronic mail. A message you compose on your computer to be received by someone else's computer.

Ethernet
A very common method of networking computers in a LAN. Ethernet will handle about 10,000,000 bps and can be used with almost any kind of computer.

Firewall
A combination of hardware and software that separates a LAN into two or more parts for security purposes.

FTP
File Transfer Protocol. A method for moving files across the Net.

Gateway
A computer that connects and office LAN or commercial online service to the Net.

GIF
A platform independent file format used to distribute graphics on the Internet.

Gigabyte
1024 megabytes.

Gopher
A menu-based program that tunnels between different computer networks in search of information.

Home page
A document that is accessed first after launching a Web browser on the World Wide Web.

HTML
HyperText Markup Language. Used to mark text files with styles and links for use on the World Wide Web.

HTTP
HyperText Transfer Protocol. Protocol used on the World Wide Web.

Internet Service Provider (ISP)
An organization which provides Internet access for individuals or other organizations.

Intranet
A private network inside a company or organization that uses the same kinds of software that you would find on the public Internet, but that is only for internal use.

I/O Port
Input/Output Port. A location in a separate memory address map maintained for CPU/device communication.

IRC
Internet Relay Chat. Featuring real-time "conversation" with people all over the world.

IRQ
Interrupt Request.

ISA
Industry Standard Architecture Instruction-Set Architecture.

ISDN
Integrated Services Digital Network. A high-speed connection to the Internet using a digital phone line.

Java
A simple object-oriented, architecture-neutral, high-performance, dynamic, general-purpose programming language. Java supports programming in the form of platform-independent Java applets.

JPEG
Joint Photographic Expert Group.

Kilobyte
1024 bytes

LAN
Local Area Network. Two or more computers connected together via network cables.

LPT
Line Printer.

Lynx
A text interface used to view documents on the WWW.

Megabyte
MB or meg for short. About 1,000 kilobytes in a megabyte. A unit of memory measurement.

Modem
Modulator-Demodulator. A device that connects your computer with a telephone line, allows your computer to communicate with another computer.

Mosaic
A graphical interface for viewing WWW documents.

MUD
Multi-User Dungeon or Dimension. A text-based (usually) multi-user simulation environment.

Multitasking
The ability to download software from the Internet while running productivity applications; a multiple-process Operating System scheme which relies on computer hardware to efficiently and safely share computer resources between applications.

Netscape
The most popular Web browser. Recently released its newest version, Netscape 3.0.

Network
Any time you connect two or more computers together so that they can share resources, you have a computer network.

Newsgroups
Any one of the Usenet's 16,000-plus electronic discussion groups. Each group devoted to a specific topic.

PC
Personal Computer.

PCI
Peripheral Component Interconnect/Interface.

PCMCIA
Personal Computer Memory Card International Association.

Pixel
One single dot out of thousands that make up a screen image.

Plug-n-Play
A hardware specification for PC's that dynamically changes the DMA, IRQ, I/O Ports and memory.

PoP
Point of presence. Refers to local phone numbers maintained by national or regional Internet access providers.

PPP
Point-to-point protocol; a type of access account that gives you virtually direct access to the Net.

Server
A computer, or a software package, that provides a specific kind of service to client software running on other computers.

SLIP
Serial Line Internet Protocol; a direct type of Internet access account requiring TCP/IP software.

Spamming
Broadcasting a single message to multiple newsgroups or email addresses.

SVGA
Super Video Graphics Display. A higher resolution.

T1, T3
High-bandwidth leased telephone lines, used to connect LAN's to the Internet.

TCP/IP
Transmission Control Protocol/Internet Protocol; a series of rules computers must obey in order to communicate across the Net.

Telnet
A communications protocol that lets you log onto another computer from a distance.

UNIX
A complex and powerful operating system used extensively on networked machines.

URL
Uniform Resource Locator; the address of a page on the WWW.

Usenet
A network featuring thousands of discussion groups.

Windows
A graphical user interface software released by Microsoft in November 1985 to run on top of MS-DOS.

WWW
World Wide Web; a hypermedia network for Net-heads who cannot live by plain text alone. Documents on the Web may contain images, sound and video as well as text.

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